### Joint West Sussex Minerals Local Plan

**Mineral Sites Study (Version 2)** 

March 2015





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#### 1. Executive Summary

- 1.1 There are many sources of minerals which have an important part to play in the prosperity of the nation and the quality of life of residents. West Sussex County Council (WSCC) and the South Downs National Park Authority (SDNPA) are required to prepare a Minerals Local Plan to ensure the steady and adequate supply of minerals as required by the National Planning Policy Framework (NPPF).
- 1.2 To do this, the Plan must identify and assess potential mineral sites and, from a list of potential options, identify the preferred sites for allocation. Broadly, the sites which are most suitable for allocation in the Plan will be allocated to meet an identified need, as set out in the Authorities' Local Aggregate Assessment (LAA).
- 1.3 The main aim of this Mineral Sites Study (MSS) is to support the development of the Draft West Sussex Joint Minerals Plan (herein known as "the Plan"), and will form a crucial part of the evidence base supporting the allocation of sites. This study considers sites for the following mineral types:
  - Sharp sand and gravel;
  - Soft sand (inc. silica sand); and
  - Brickmaking clay.
- 1.4 The MSS considers each proposed site and sets out information on key considerations.
- 1.5 This version of the MSS (version 2) has been prepared following a period of engagement with the general public during August-September 2014. In addition to the appraisal of a wide range of information submitted by operators for consideration (as part of the on-going site nomination process), this version has been updated using information from WSCC and SDNPA Officers (such as ecologists, archaeologists, landscape architects etc) as well as from other agencies (such as Natural England and the Environment Agency).
- 1.6 The following table highlights each proposed mineral site considered suitable for further assessment at this stage.

Table 1: Proposed mineral sites considered within the MSS

Proposal/Site	Code	District	SDNPA/ WSCC	Mineral Proposed
Woodmancote	M/CH/1A	Chichester	WSCC	Sand and Gravel
Common Road West	M/CH/1B	Chichester	WSCC	Sand and Gravel
Common Road East	M/CH/1C	Chichester	WSCC	Sand and Gravel
Slades Field	M/CH/1D	Chichester	WSCC	Sand and Gravel
Densworth North	M/CH/2A	Chichester	WSCC	Sand and Gravel
Madam Green Farm	M/CH/4CD E	Chichester	WSCC	Sand and Gravel
Brick Kiln Farm	M/CH/4F	Chichester	WSCC	Sand and Gravel
Funtington West	M/CH/1G	Chichester	WSCC	Sand and Gravel
East of West Heath Common	M/CH/7B	Chichester	SDNPA	Soft Sand
Minsted West	M/CH/8A	Chichester	SDNPA	Soft Sand
Severals East	M/CH/8D	Chichester	SDNPA	Soft Sand
Severals West	M/CH/8C	Chichester	SDNPA	Soft Sand
Hawkhurst Farm	M/CH/9A	Chichester	SDNPA	Soft Sand (building and coarse)
Duncton Common	M/CH/10A	Chichester	SDNPA	Soft Sand
Coopers Moor	M/CH/10C	Chichester	SDNPA	Soft Sand
Horncroft	M/CH/11	Chichester	SDNPA	Silica Sand
Chantry Lane Extension	M/HO/2	Horsham	SDNPA	Soft Sand
Ham Farm	M/HO/4A	Horsham	WSCC	Soft Sand
Land at Wickford Bridge	M/HO/7	Horsham	SDNPA	Silica Sand
Rock Common West	M/HO/3A	Horsham	SDNPA	Soft Sand
Land Adjacent to West Hoathley Brickworks	M/MS/1	Mid Sussex	WSCC	Wadhurst Clay

#### Scope of Study and arrangements for review

1.7 The MSS does not constitute a Sustainability Appraisal (SA) of minerals proposals. An SA of the mineral proposals (proposals considered to be suitable for further appraisal within this study) will be prepared following the completion of this study.

1.8 The MSS is a **'living document'** and contains the most up to date information on mineral sites under consideration. If new information is obtained on the proposals, the study will be updated as required.

#### 2. Introduction

- 2.1 Minerals are essential to the nation's prosperity and quality of life. It is important that there is an adequate and steady supply of material to provide the infrastructure, buildings and goods that society, industry and the economy needs. It is also important that this provision is made in accordance with the principles of sustainable development.
- 2.2 Paragraph 143 of the NPPF requires that Local Plans should allocate sites to promote development and flexible use of land. Specifically in relation to planning for aggregate minerals, the NPPF states that Mineral Planning Authorities should plan for a steady and adequate supply of minerals and make provision for aggregates in the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate.
- 2.3 Government guidance on the supply of aggregates set out within the National Planning Practice Guidance states that provision for land won aggregates extraction should take the form of specific site allocations, wherever possible, but the identification of preferred areas and/or areas of search may be appropriate. National Park Authorities are not expected to designate Preferred Areas or Areas of Search given their overarching responsibilities for managing National Parks.
- 2.4 The MSS is a 'living' evidence document which will be used to support the development of the Draft Joint Minerals Local Plan in 2016. The evidence contained within the MSS will be used to inform where mineral extraction should take place and which specific sites should be allocated. This study identifies sites which have the potential to be developed for minerals, because they are considered to be suitable and available for development, and considered to be viable. The fact that a site has been included in this study does not mean that it will be allocated in the Joint Minerals Local Plan or that it will be granted planning permission.

#### What this study includes

- 2.5 This study considers proposals for the following types of mineral developments which have not been ruled out at previous stages:
  - Sharp sand and gravel
  - Soft sand (inc. silica sand)
  - Chalk
  - Brickmaking clay

- 2.6 The study considers each site proposed, setting out current information on each one, against the following key considerations:
  - Landscape designations/visual impact
  - Nature conservation and geodiversity
  - Historic environment
  - Water environment (including flooding)
  - Air quality
  - Soil quality
  - Public Rights of Way
  - Transport (including access)
  - Services and utilities
  - Amenity
  - Cumulative impact
  - Airport Safeguarding Zones
  - Site specific information

#### What this study does not include

- 2.7 The study does not include any sites considered for sandstone, aggregate wharves or railheads as there have been no new sites promoted by landowners or operators. Should any potential sites for sandstone, wharves or railheads come forward they will be assessed within future versions of this document.
- 2.8 This study does not consider the proposals for other minerals which can be extracted in West Sussex such as oil and gas. This is because it is not considered necessary to identify specific sites or areas for such minerals within the Plan.

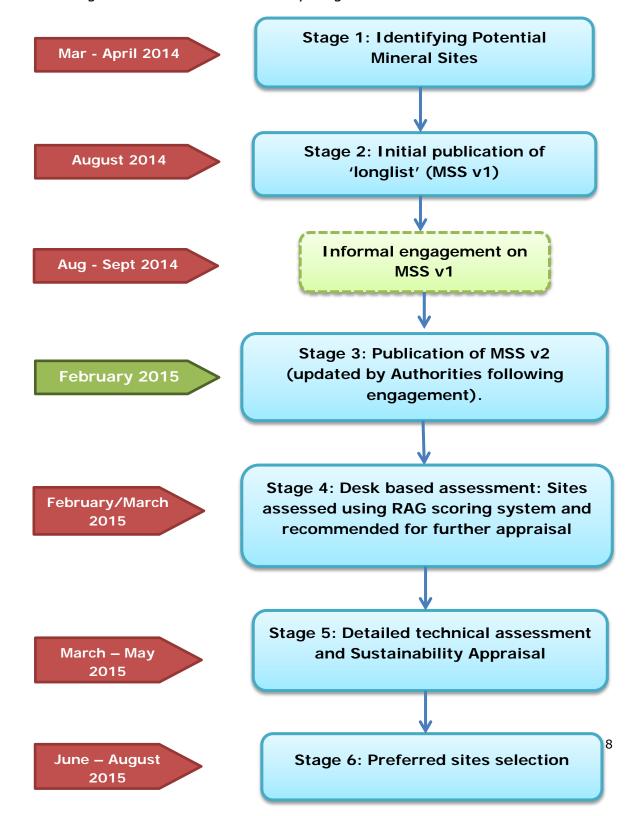
#### Why has this Study been published?

- 2.9 This version of the Study has been published in order to reflect the responses received during the public engagement that took place in 2014. The report also contains a refined site assessment process, confirming when communities and stakeholders can expect to find out more.
- 2.10 The Authorities will now use this updated Study to further assess the sites included and will aim to confirm the proposed site allocations later in 2015, as part of the draft Mineral Local Plan.

2.11 A further opportunity to comment on the accuracy of the information contained with the Study will be provided a little later in the Plan preparation process. Please do not provide comments in relation to this Study at this time.

#### 3. Assessment of proposals

3.1 There has been a significant level of work already undertaken, in particular on the appraisal of mineral proposals. The appraisal process will take place in six stages indicated in the summary diagram:



#### Stage 1: The baseline, site nominations and initial search

- 3.2 Documents such as Background Paper 1: Setting the Context: Spatial Portrait (2014), Background Paper 2: Minerals in West Sussex (2014) and the West Sussex Local Aggregate Assessment (2014) provide a picture of mineral production at the current time. These documents present baseline information on reserves, current sites, existing allocations, constraints, and market areas.
- 3.3 The information set out in the baseline documents was used, together with the mineral site assessment proformas produced in 2009, in order to identify potential sites.
- 3.4 The initial stage of mineral site selection was to identify areas where mineral sites could be located. This was done by asking for sites to be put forward by landowners, agencies and minerals operators for consideration through a site nomination process. The industry and landowners are well placed to nominate sites for consideration because they will have local knowledge about the quality and viability of mineral resources and can provide information about the likely deliverability of sites. This process was undertaken between Friday 14 March to Friday 11 April 2014, and sites nominated have been added to the list generated from the review of baseline documents and the previous site proformas.
- 3.5 It should be noted that whilst the formal site nomination process concluded in April 2014, the Authorities will continue to consider sites, in line with the methodology, that are nominated in advance of the publication of the Minerals Local Plan.
- 3.6 Sites which were rejected during the 2009 sites assessment have been listed within Appendix 2 as sites not considered suitable for further consideration, unless they have been re-promoted during the spring 2014 nomination process.

# Stage 2: Initial publication of Mineral Sites Study and data gathering (MSSv1).

3.7 The initial stage of identifying potential mineral sites involved a desk-top study to gather evidence on sites. Information for mapping and relevant policies was obtained from GIS systems, county and district planning documents.

3.8 The initial screening of individual sites involved consultation with internal consultees who provided specialist advice on particular issues. The following consultees were contacted for their professional opinion:

#### Internal (WSCC / SDNPA as appropriate):

- Ecologist
- Public Rights of Way Officer and South Downs Way Officer
- Landscape Officers
- Aviation Officer
- Air Quality Officer
- Highways and Transport
- Archaeologist
- Drainage and Flood Risk Team
- Planning Policy Teams
- SDNPA Strategy Leads
- SDNPA Area Rangers for sites within the SDNP
- 3.9 Information was gathered about the considerations and constraints listed in Table 2.
- 3.10 A number of past evidence base studies refer to sites being considered at this stage, including a high level Transport Assessment (2011) and a Landscape Sensitivity and Capacity study (2011). These have been used to prepare the proformas within the MSS. Previous evidence will be updated accordingly at Stage 5.
- 3.11 The outcome of this stage resulted in the production of Version 1 of the MSS. MSSv1, contained a list of sites for further consideration which was the focus of the MSS. The inclusion of a site in the MSS does not mean that it will be allocated in the Joint Minerals Local Plan or that it will be granted planning permission.
- 3.12 The other list of sites included within the MSSv1 indicated sites not considered suitable for further consideration. This is considered accurate at the time of publication; however this classification may not be permanent. Instead, emerging evidence gathered through the preparation of the Mineral Local Plan, including engagement responses, will be used to update the Study.

#### Informal Engagement (Sept-August 2014)

3.13 Informal public engagement on MSSv1 (undertaken during August-September 2014) provided an opportunity for communities, stakeholders and the industry to check the accuracy of the detailed information provided for each site. In addition, the following consultees were also contacted for their professional opinion:

#### External:

- Environment Agency
- Highways Agency
- Natural England
- English Heritage
- Utility Companies
- District and Borough Councils
- Health and Safety Executive
- Sussex Wildlife Trust
- Local Nature Partnership
- Forestry Commission
- National Rail

# Stage 3: Publication of MSSv2 (updated by Authorities following engagement on MSSv1)

- 3.14 Following engagement on MSSv1, the Authorities have produced this version (v2) of the MSS. It was initially intended that MSSv2 would be published at a later stage in the process, however following engagement it was decided that it was important to feedback to respondents. This is due to a number of stakeholder concerns about the accuracy of information, and the Authorities consider that providing an updated version allows stakeholders to understand the changes that have been made as a result of comments received. Site assessment (stage 4) will take place following publication of MSSv2.
- 3.15 MSSv2 confirms the removal of five sites that had been included MSSv1, which at this stage are deemed to be undeliverable. These sites have been deemed undeliverable due to either landowners requesting their removal from consideration, or because the mineral resource is unworkable due to legal covenants in place at the site. These sites have been added to Appendix 2.

#### Stage 4: Desk based assessment of sites within MSSv2

3.16 Authority officers (including those listed in paragraph 3.10) will assess the remaining sites in order to determine which sites are considered suitable to for advance to Stage 5 (detailed and technical assessments). This will be undertaken using a traffic light or Red Amber Green (RAG) assessment methodology. This will seek to assess sites against the considerations listed within the site proformas by assigning a score (Red, Amber or Green) to each of the constraints. The assessment process will determine whether sites are considered suitable for further technical assessments.

#### Stage 5: Detailed technical assessment and Sustainability Appraisal

- 3.17 Detailed technical assessments will be carried out on the remaining sites (identified at Stage 4) to provide more detailed evidence on the suitability of sites for potential allocation within the Joint Minerals Local Plan. This will include the following:
  - · Habitats Regulations Assessment;
  - Landscape Sensitivity and Capacity Study
  - Transport Assessment;
  - Strategic Flood Risk Assessment; and
  - Sustainability Appraisal (inc. Ecosystem Services);
- 3.18 The assessments will provide the Authorities with the level of evidence required to select sites for allocation within the Draft Joint Minerals Local Plan (Stage 6), which will be subject to consultation. The outcomes of the detailed assessments will be made available online.

Habitats Regulations Assessment

3.19 The purpose of the Habitat Regulations Assessment (HRA) is to assess the impacts of plans and proposals on the integrity of 'European Sites' which are of European or global significance for the habits or species or contained within them (e.g. Special Areas for Conservation, Ramsar sites). If the Assessment reveals any significant negative effects, mitigation measures and/or alternative options should be examined to avoid any potential damaging effects.

Landscape Sensitivity and Capacity Study

3.20 The Landscape Sensitivity and Capacity Study update will:

- Provide an assessment of the landscape and the potential for it to accommodate mineral workings; and
- Provide guidance on the extent to which each site might be able to accommodate mineral development without having a significant detrimental impact on the character of the area taking into account current practices of design and mitigation. The study will also consider restoration and after use where appropriate.
- 3.21 Where sites were included in the Landscape Sensitivity and Capacity Study carried out in 2011, details of that assessment are included for each site in the MSS. The previous findings will be checked to make sure that they are accurate and up to date through the next update of the Study.

Transport Assessment

3.22 A Transport Assessment will provide a more detailed assessment of each individual site and include a comprehensive review of the associated traffic impacts, access implications and routing strategies, as well as giving consideration to any initial comments received to date by key consultees.

Strategic Flood Risk Assessment

- 3.23 The National Planning Policy Framework (NPPF) states that Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. The NPPF also states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. It is also a requirement of the NPPF that Local Plans should be supported by Strategic Flood Risk Assessment.
- 3.24 The Strategic Flood Risk Assessment (SFRA) provides information about flood risk to inform decisions about site selection. In allocating land for development, local planning authorities should apply the Sequential Test to demonstrate that there are no reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed. The SFRA provides the evidence to inform the Sequential Test. Some sites will have been considered in the SFRA document produced in 2010, an update of this work will be commissioned and any new sites included in the document.

Sustainability Appraisal (including Ecosystem Services Assessment)

- 3.25 The Sustainability Appraisal (SA) (which will incorporate a Strategic Environmental Assessment) will consider the likely social, economic and environmental implications of the sites being assessed and the Plan as a whole. The SA is an on-going process which will continue throughout the plan making process, and will help with the selection of the most sustainable sites.
- 3.26 The aim considering Ecosystem Services is to provide background evidence and allow early consideration of issues which inform appropriate restoration schemes for mineral sites in the Plan Area. The use of this method ensures that an appropriate long-term site restoration vision for each preferred site can be established at the earliest stage possible. Such an approach would also allow for a restoration vision for the life of the Plan and beyond.
- 3.27 The Ecosystems Services Assessment looks in more detail at each site to see what could be delivered in the longer-term. This includes the three main ecosystem services that sites can provide through effective operation and appropriate restoration:
  - 'Regulating Services' (e.g. climate regulation, air quality regulation, water quality regulation, soil erosion and flood regulation);
  - 'Provisioning service' (e.g. water supplies, geodiversity, natural biodiversity, mineral resources); and
  - 'Cultural Services' (e.g. quality of life (aesthetic value, sense of place, tranquillity), amenity (outdoor recreation, tourism opportunities) and life-long learning (education, training and research)).

# Stage 6: Preferred Site Selection (Option Papers and preparing the draft Plan)

- 3.28 The results of the detailed technical site assessments will be set out in the next version of the Mineral Sites Study (v3). This version will be used to help with the identification of preferred sites which will be set out in the draft Minerals Local Plan.
- 3.29 The Authorities intend to prepare a number of Option Papers to support the preparation of the draft Mineral Local Plan. The Option Paper covering site allocations will set out the range of reasonable policy options/approaches, drawn from the evidence available, and conclude on the proposed site allocations for inclusion in the Mineral Local Plan.

- 3.30 This Option Paper will draw upon the requirements of National planning policy and guidance, and evidence such as the conclusions of the Mineral Sites Study, need for aggregate minerals set out within the LAA and any other relevant information. The Authorities will continue to engage with mineral site operators to ensure the information included within the Study is up to date.
- 3.31 The Option Paper will also include an assessment of exceptional circumstances (NPPF paragraph 116) in relation to any site being considered for allocation within the South Downs National Park.
- 3.32 The Authorities are currently considering how to engage on key elements of the evidence base, including MSSv3 and the Option Papers, with key stakeholders, including communities located close to possible mineral sites, in summer 2015. This informal engagement is not required by the planning regulations however the Authorities consider that it may be helpful.
- 3.33 All supporting evidence, the most up to date Mineral Sites Study and the Options Papers will be published alongside the draft Mineral Local Plan in January 2016, and a full public consultation will be carried out at this stage.

Table 2: Key assessment information and criteria

	Considerations	Constraints	Source of information
Landscape Designations/ Visual Impact	Consider the potential impact on designated landscapes – There are two AONBs within West Sussex; Chichester Harbour and the High Weald. The South Downs National Park covers almost the whole of the chalk outcrop, almost half the Folkstone Beds, and part of the gravel reserve north of Chichester  Potential for enhancement	The significance of any landscape and visual impact is dependent on a number of site specific issues, such as the proximity to sensitive viewpoints, presence of screening features, direct effects on landscape fabric, proximity to landscape designations and the existing landform.	GIS The South Downs Integrated Landscape Character Assessment (2005)(updated 2011) West Sussex Landscape Sensitivity and Capacity Study (October 2011) Consultation with landscape specialists Consultation with ecological specialists
Nature conservation and geodiversity	<ul> <li>Consider proximity to sites of international/national importance for nature conservation and potential for adverse effects.</li> <li>Consider location of Regionally Important Geological and Geomorphological Sites (RIGS)</li> <li>Potential for enhancement</li> </ul>	<ul> <li>International sites are afforded the highest level of protection. These include Ramsar sites, Special Protection Areas (SPA) and Special Areas of Conservation (SAC).</li> <li>Mineral development should not take place where it would adversely affect a site of European Importance.</li> <li>The likelihood of any adverse impact on National Nature Reserves (NNR) will also be considered.</li> <li>Many Sites of Special Scientific Interest (SSSI) are also designated as sites of international importance and there are numerous sites distributed throughout the county. Minerals development should not occur on land within or</li> </ul>	Consultation with ecological and geological specialists

	Considerations	Constraints	Source of information
		outside SSSIs if it is likely to have an adverse effect on the SSSI.	
Historic environment	<ul> <li>Consider proximity to a Registered Historic Park or Garden.</li> <li>Consider proximity to historic site/building/monument with a nationally recognised designation</li> </ul>	<ul> <li>Presumption in favour of the preservation of:         <ul> <li>listed buildings and their setting</li> <li>nationally important archaeological remains in situ and their settings</li> <li>the preservation of nationally important archaeological remains if mineral proposals would cause damage or have a significant impact on them.</li> </ul> </li> <li>Proposals for minerals development should not affect the character or appearance of conservation areas.</li> <li>Although historic parks and gardens have no statutory controls, they should be protected. The effect of a proposed development on a registered park or garden or its setting will be considered.</li> </ul>	Consultation with specialists of archaeology and the historic environment
Water environment (including flooding)	<ul> <li>Consider proximity to Source Protection Zones or major/minor aquifers.</li> <li>Consider proximity to vulnerable water bodies.</li> <li>Areas subject to flooding need close consideration – dependent on type of development.</li> <li>Mineral extraction can provide opportunities for flood water and general water storage.</li> </ul>	<ul> <li>The NPPF technical guidance on flooding states that mineral working and processing is classed as a less vulnerable development (except for sand gravel which is considered water compatible) in terms of flood risk vulnerability.</li> <li>Mineral extraction development needs to take account of the presence of Source Protection Zones the major aquifer that coincides with the chalk of the South Downs.</li> </ul>	<ul> <li>GIS</li> <li>Consultation with Environment Agency</li> <li>Strategic Flood Risk Assessment (SFRA)</li> </ul>

	Considerations	Constraints	Source of information
Air quality	<ul> <li>Adverse emissions can be a concern at some facilities (dealt with at planning application stage if necessary through use of controls).</li> <li>Consider proximity to sensitive human receptors. Proximity to Air Quality Management Areas</li> </ul>	The impact of development on air quality is likely to be particularly important where proposed development is within or close to an Air Quality Management Area (AQMA), where the proposed development could affect air quality such that it may cause an AQMA to be designated.	Officer assessment
Soil quality	<ul> <li>Consider proximity or location of best and most versatile agricultural land</li> <li>Consider location of sensitive land and soils</li> <li>Potential of enhancement</li> </ul>	The presence of the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification), should be taken into account. Where significant development of agricultural land is unavoidable, poorer quality land (grades 3b, 4 and 5) should be used in preference to that of a higher quality. Much of the land within the gravel resource area is of higher agricultural grades, therefore although there will be a preference for finding sites on the lowest grade agricultural land, sites on the highest agricultural land may be unavoidable.	<ul> <li>Consultation with landscape specialists</li> <li>Officer assessment</li> </ul>
Public Rights of Way (PRoW)	<ul> <li>Consider the presence of public rights of way</li> <li>Potential for enhancement</li> </ul>	The significance of any impact is dependent upon the location of public rights of way and areas used for recreation. This is particularly important with the South Downs National Park in relation to the second purpose 'to promote opportunities for the understanding and enjoyment of the special qualities'.	Consultation with PRoW Team and SDNPA Rangers
Transport (including	The Advisory Lorry Route (ALR) is defined in the West Sussex Transport Plan 2011- 2026.	Minerals have to be worked where they occur therefore will not always be close	Consultation with transport specialists

	Compidentians	Canatrainta	Course of information
access)  Services and utilities	The ALR is divided into the 'Strategic Lorry Route' (SLR), which are the preferred routes for movements crossing the County and those movements starting and ending should use them in preference to local lorry routes where possible. The ALR also includes 'Local Lorry Route' (LLR) which should only be used for the start or final leg of a journey or between built up areas of West Sussex.  • Water, Gas, Electricity, Telecommunications	to the ALR, although access to the ALR is desirable. The challenge is to avoid the use of unsustainable roads by locating mineral sites close to the ALR and to minimise the environmental and amenity impact of the transportation of minerals.  • Distance to market (demand for aggregate)  • Sites which have utilities passing underneath may not be showstoppers	<ul> <li>Traffic studies were relevant</li> <li>Officer assessment</li> <li>Utility providers</li> </ul>
utilities		<ul> <li>but will be a consideration in terms of the costs and benefits of dealing with them.</li> <li>It is important for sites to have access to services and utilities to ensure the efficient running of mineral sites.</li> <li>Extensions to existing sites can utilise existing infrastructure and minimise environmental disturbance and may often be more sustainable. However, in some instances, new sites may be more sustainable. Therefore, it is important that they have suitable access to services and utilities to enable the site to be operated efficiently and is deliverable.</li> </ul>	• Othicy providers
Public amenity	<ul> <li>The National Planning Policy Framework         (NPPF) states that the adverse impact of         minerals workings on neighbouring         communities should be minimised.</li> <li>Consider proximity of local communities         whose amenity may be impacted by         development.</li> </ul>	<ul> <li>Noise, dust, smell, light, vibration, air quality, impact on residents and neighbouring uses, impact on wider areas (users of the countryside)</li> </ul>	Officer assessment
Cumulative	The NPPF states that policies and proposals		Officer assessment

	Considerations	Constraints	Source of information
impact	should take account of existing activity and impacts, the duration and nature of proposals for new or further workings, and the extent of impacts that a particular site, locality, community, environment or wider areas of mineral working can reasonably be expected to tolerate over a particular or proposed period.		
Airport Safeguarding Zone	Many types of development can attract to birds, including large flat-roofed structures, landfill sites, gravel pit restoration schemes and nature reserves	Mineral development sites should not have an adverse impact on the operational integrity or aviation facilities of the airport safeguarded areas of Gatwick, Shoreham or Goodwood Airports. The relevant managing bodies will need to be consulted if a sites lies within 13km radius of an airport. It may be possible to incorporate mitigation measures to overcome aviation objections.	Officer assessment
Site specific information	<ul> <li>Minerals type/quantity</li> <li>Total reserve (tonnes)</li> <li>Marketable reserve (tonnes)</li> <li>Estimated annual yield (tonnes)</li> <li>Suggested working arrangements</li> <li>Suggested after-use</li> <li>Landownership</li> <li>Developer/Operator</li> </ul>	<ul> <li>It also important that sites allocated within the Joint Minerals Local Plan deliverable.</li> <li>Therefore additional information about the sites is required to determine whether a site can be delivered during the plan period.</li> <li>Sites which cannot be demonstrated will come forward should be excluded.</li> <li>If the relevant information is not forthcoming, the Authorities will not be able to consider such sites as allocations as it would not be a 'sound' approach to progress a site without technical justification.</li> </ul>	Officer assessment

#### 4. Mineral sites in the Study

Sites considered within this Study

- 4.1 All viable sand and gravel, and brick making clay proposals are considered within this study. Viable sites are defined as those sites which have not previously been withdrawn from the plan preparation process and are considered on initial inspection to have a viable mineral reserve, or be a viable site for the location of other minerals development.
- 4.2 The sites within this study have been proposed through previous work carried out in relation to the Plan and a site nomination process undertaken in Spring 2014.
- 4.3 All sites listed in the table below are mapped in Map 1.

Table 3: Proposed mineral sites for consideration

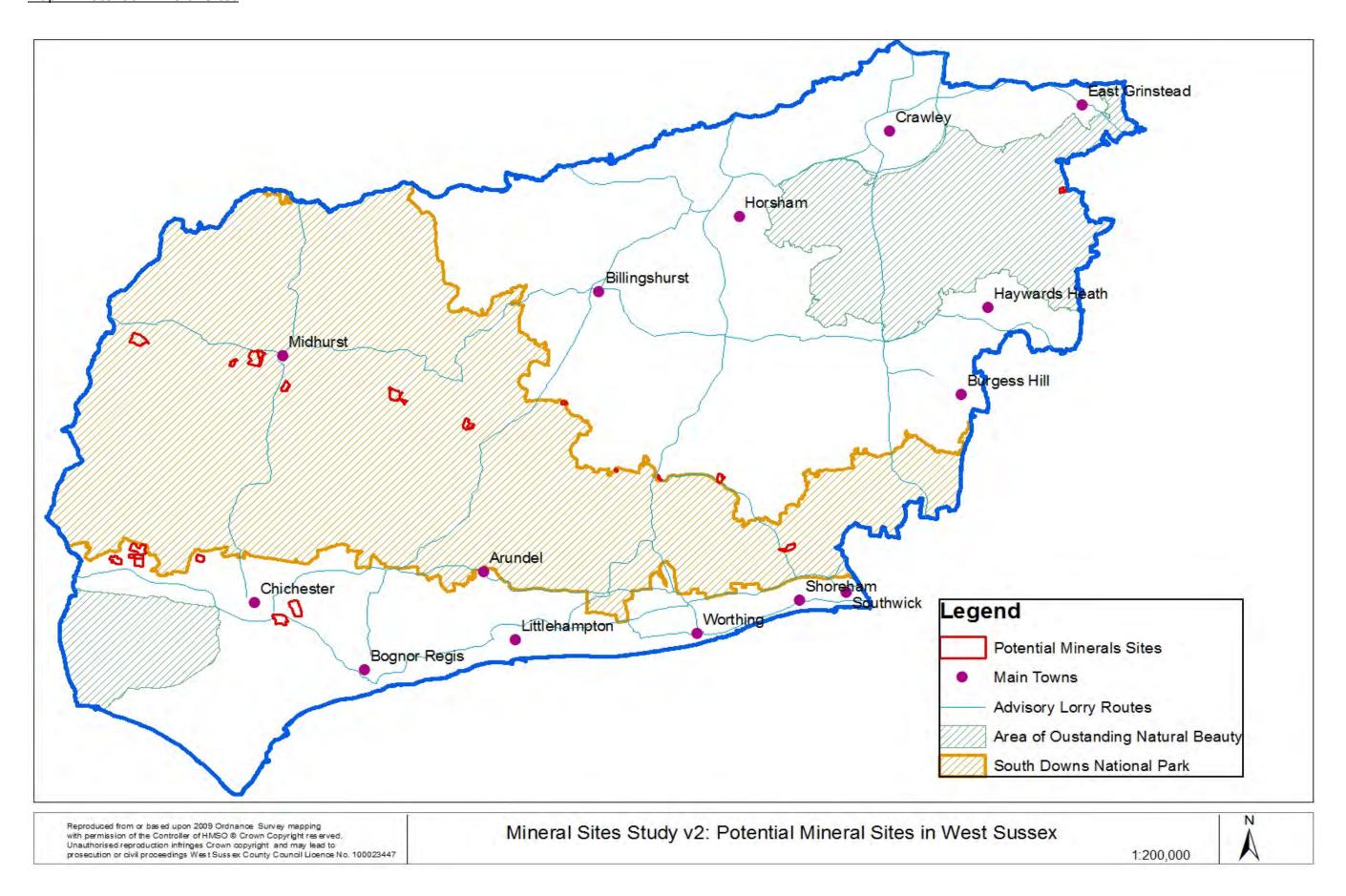
Proposal/Site	Code	District	SDNPA/ WSCC	Mineral Proposed
Woodmancote	M/CH/1A	Chichester	WSCC	Sand and Gravel
Common Road West	M/CH/1B	Chichester	WSCC	Sand and Gravel
Common Road East	M/CH/1C	Chichester	WSCC	Sand and Gravel
Slades Field	M/CH/1D	Chichester	WSCC	Sand and Gravel
Densworth North	M/CH/2A	Chichester	WSCC	Sand and Gravel
Madam Green Farm	M/CH/4CDE	Chichester	WSCC	Sand and Gravel
Brick Kiln Farm	M/CH/4F	Chichester	WSCC	Sand and Gravel
Funtington West	M/CH/1G	Chichester	WSCC	Sand and Gravel
East of West Heath Common	M/CH/7B	Chichester	SDNPA	Soft Sand
Minsted West	M/CH/8A	Chichester	SDNPA	Soft Sand
Severals East	M/CH/8D	Chichester	SDNPA	Soft Sand
Severals West	M/CH/8C	Chichester	SDNPA	Soft Sand
Hawkhurst Farm	M/CH/9A	Chichester	SDNPA	Soft Sand (building and

Proposal/Site	Code	District	SDNPA/ WSCC	Mineral Proposed
				coarse)
Duncton Common	M/CH/10A	Chichester	SDNPA	Soft Sand (building and coarse)
Coopers Moor	M/CH/10C	Chichester	SDNPA	Soft Sand
Horncroft	M/CH/11	Chichester	SDNPA	Silica Sand
Chantry Lane Extension	M/HO/2	Horsham	SDNPA	Soft Sand
Ham Farm	M/HO/4A	Horsham	WSCC	Soft Sand
Land at Wickford Bridge	M/HO/7	Horsham	SDNPA	Silica Sand
Rock Common West	M/HO/3A	Horsham	SDNPA	Soft Sand
Land Adjacent to West Hoathley Brickworks	M/MS/1	Mid Sussex	WSCC	Wadhurst Clay

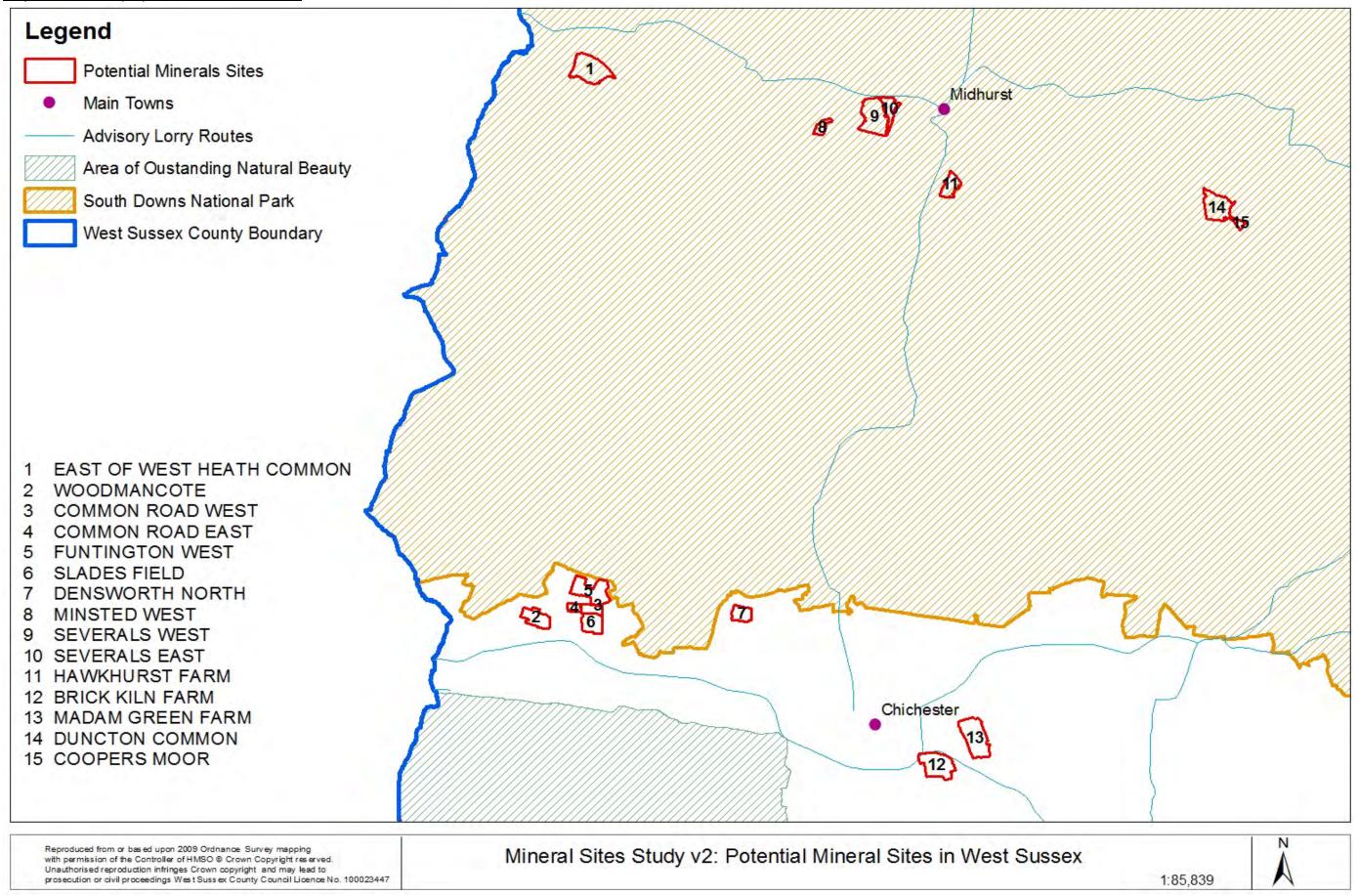
#### Sites which have been excluded

4.4 A number of sites have been ruled out been ruled out (see **Appendix 2**). This includes sites considered during the preparation of previous mineral Plans, and sites following the engagement period during August – September 2014. As a result, these proposals will not be included within this study, or indeed in any further stages of appraisal, unless further information is brought forward indicating a site is deliverable and available. The proposals were previously ruled out through the advanced stages of analysis work previously undertaken of proposals for the Plan, and their reasons for elimination are still considered to be relevant.

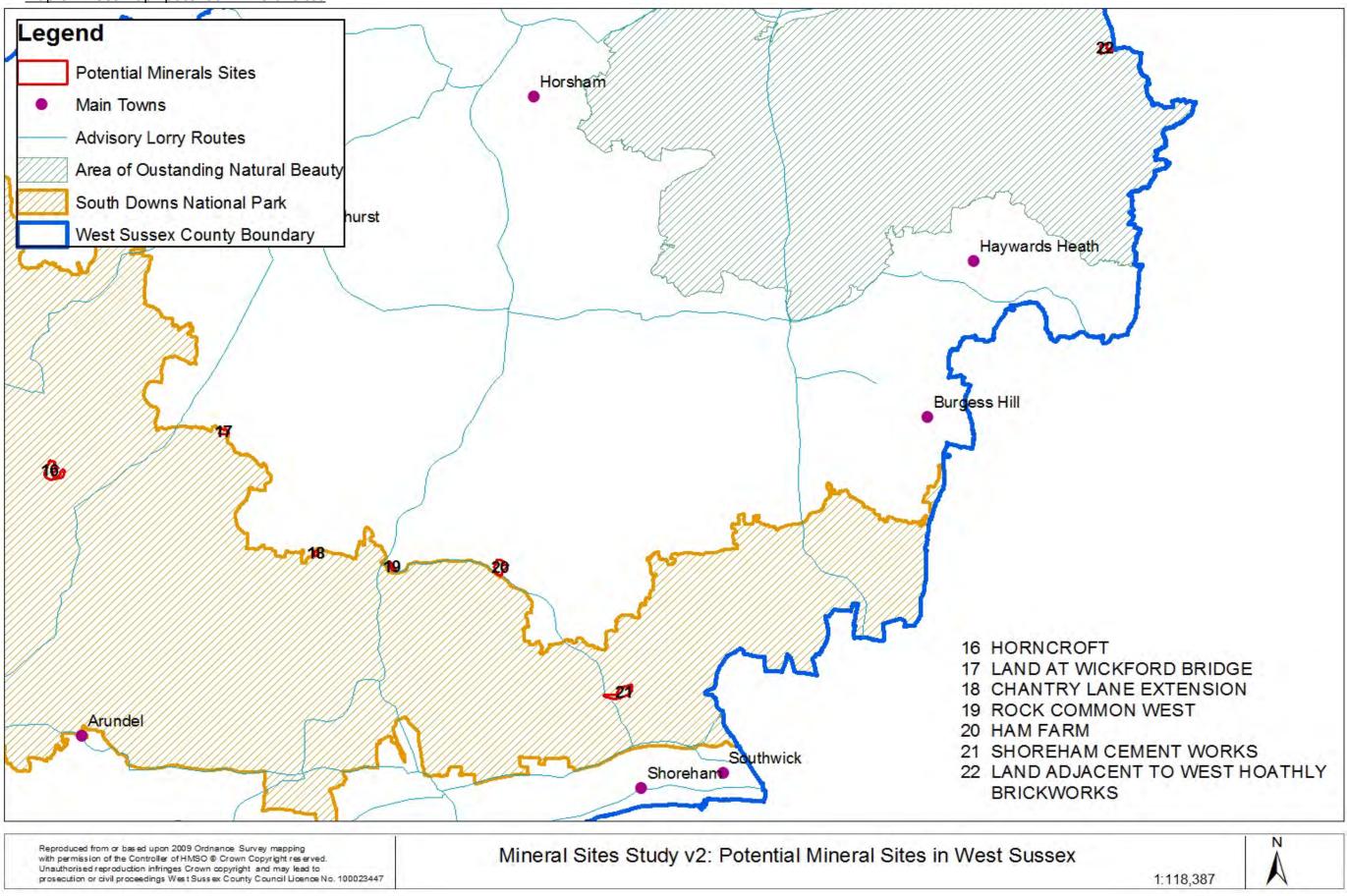
Map 1: Potential Mineral Sites



Map 2: Inset Map- potential mineral sites



Map 3: Inset Map- potential mineral sites



#### 5. Sand and Gravel Proposals

- 5.1 Gravel of varying quality and some sharp sand is found to the south of the Downs in the south-west of the County in superficial or 'drift'; deposits. Coarser, silty gravels lie over the chalk to the north of a line approximating to the route of the A27 and have been exploited in dry workings. Overlying the clay to the south, cleaner, better-sorted gravels have been exploited through wet working as evidenced by lakes around the eastern and southern fringes of Chichester. Gravel sites are clustered around Chichester and south of the Downs from the Funtington area in the west to Slindon in the east. For more information on these sites see our Annual Monitoring Report.
- 5.2 Evidence collated through stakeholder engagement in 2008/09 provided some information on the quality of sand and gravel resources outside the SDNP. Borehole research by an operator on unconsolidated sand deposits indicated that deposits to the east of Steyning are finer and dirtier which may make extraction uneconomic on any significant scale. Operators also noted that:
  - in the Storrington area a lot of the land is National Trust owned;
  - Gravel deposits get much thinner to the south east and are therefore uneconomic to work; and
  - The western end of the gravel deposit, south of the A27, would also be uneconomic.
- 5.3 The Authorities have commissioned a Soft and Silica Sand Study to provide evidence that will enable the development of a strategy options for both soft and silica sand. The study will;
  - determine whether the sands in the Folkstone formation in West Sussex, Hampshire and East Sussex, traditionally worked as building sands, display silica sand properties and could be used for silica sand end uses, either 'as worked' or after processing, and if processing is required, the type of processing.
  - provide evidence about the local, regional or national significance of the sand production from the Folkstone formation in West Sussex, Hampshire and East Sussex and if there are alternatives outside designated landscapes to the type of sand that is being currently worked and proposed.

- provide evidence of the fact that materials from alternative supplies currently travel and/or that they could reasonably be expected to do so based on the economies of transporting minerals.
- An explanation of 'terms' relevant to the 'site considerations' presented in this chapter can be found in Appendix 1 'Glossary and Abbreviations' for information.

#### Sharp sand and gravel proposals

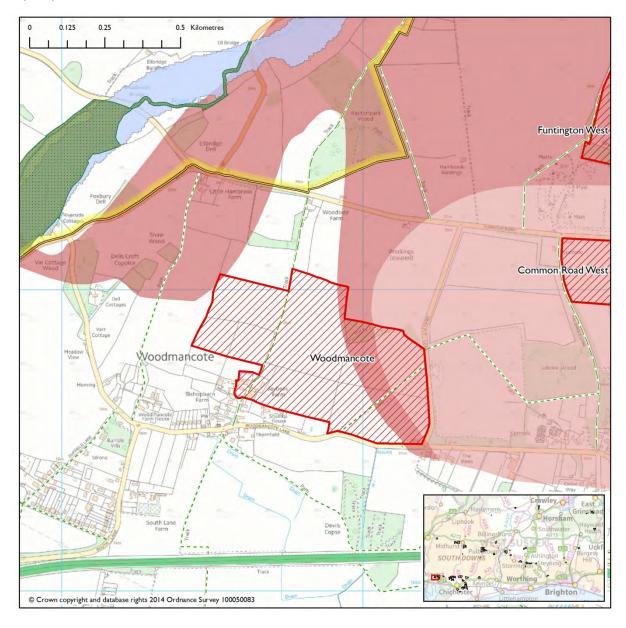
5.5 There are 12 sharp sand and gravel proposals considered within this section of the study, all 12 are considered to be new sites. The proposals have been assessed against the main environmental, social and economic sustainability issues and an assessment of whether each proposal is suitable for further appraisal through sustainability appraisal is included.

#### Map Legend



## <u>Woodmancote</u>

### M/CH/1A



Site description		
District/Parish	Chichester/Westbourne	
Area (ha)	28ha (approx.)	
Mineral type	Sharp sand and gravel	
Potential yield	At least 700,000 tonnes	
Current use	Agriculture	
Owner	Mr. D. Welch	
Potential operator	Hanson	

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Plar	nning history and current permissions
Extension to existing site or new site	New site (former quarry adjacent to site)
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	The site (with an extended boundary) was allocated in the Minerals Local Plan (2003). Part of the site has been worked. The site was also identified in the Minerals Development Plan Document Issues and Options (2005) and was considered acceptable subject to the retention of the woodland, provision of buffers, assessment of the impact on the water environment and mitigation of impact on public rights of way.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process but the boundary is different to the previously assessed and allocated smaller area.

Fit with the spatial strategy		
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations	
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations	
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations	

Can it be delivered?		
Availability	Although Hanson do not own Woodmancote, they have expressed an interest in this site. The landowner has not had any discussions with Hanson, or any other operators to date, however the landowner supports the consideration of the site at this stage.	
Deliverability	Deliverability unknown at this stage.	

Key Criteria		
Landscape and visual designations	The site is located approximately 500m south of the SDNP boundary.	
	The site is considered to have a <b>Low-Medium sensitivity</b> to extraction. It would not compromise the tranquillity and sense of remoteness identified as key sensitivities of South Downs National Park, despite its proximity. Due to the topography of the site, development of mineral workings in this location is unlikely to visually intrude on surrounding areas and there is potential to further limit visibility into the site (based on the 2011 study).	
	The site is considered to have a <b>Moderate</b> capacity to accommodate mineral activities (based on 2011 study).	
	Data indicates that the site is within an area of medium tranquility and experiences some noise intrusion (based on 2011 study)	
Nature conservation and geodiversity designations	The site is located approximately3.5km south west of Kingley Vale SAC/SSSI.	
	The site is located approximately 2.6km north of the Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar.	
	The site is located 600m east of River Ems SNCI.	
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that air quality was a pathway requiring consideration due to the potential for increased mineral traffic movements within close proximity to European designated sites. It was concluded that this mineral site will not have an adverse effect on air quality at any European designated sites within West Sussex but that the transport assessments for this mineral sites should take into account any impacts on sites in Hamsphire if there will	

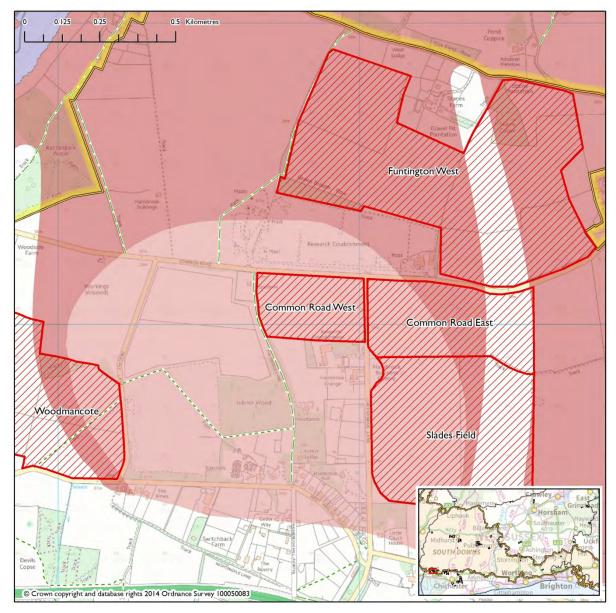
	be a significant increase in vehicle movements on the A27.
Historic environment designations	Acceptable provided that impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation). Field evaluation should be undertaken pre-determination and the results made available to consider at the application stage.
Water environment (including flooding)	<ul> <li>The site is located in Flood Zone 1</li> <li>Most of site at low risk of surface water flooding with 10% at higher risk</li> <li>Most of site at negligible susceptibility risk of groundwater flooding with 20% at higher risk. There should therefore be careful consideration of depth of working and de-watering</li> <li>Flood Vulnerability Classification: Water Compatible</li> <li>Eastern end of site is in Source Protection Zone 2/3 (north of Hairspring Watercress abstraction/spring)</li> <li>EA maps indicates the site is within groundwater vulnerability zones: Major Aquifer (intermediate) and Minor Aquifer (high)</li> <li>Phase 1 Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required

Soil quality	The site contains Grade 3 best and most versatile aggricultural land.
Public rights of way	The site is crossed by public footpath 252 and public bridleway 250.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	There may also be potential impacts on: Public Footpaths 247, 249,251 and 255.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	The site only has a frontage onto Marlpit Lane. There is former gravel extraction site to the north and this has a separate access direct onto Common Road.
	Irrespective of whether a new access is created onto Marlpit Lane or the existing access reopened, a routing agreement is suggested to prevent HGV access and egress via the village of Woodmancote, which is to the south.
	In terms of general access routing, there are two broad options, either to use Common Road/B2136/B2147 to head east and west, or to use Common Road/B2136/Cheesemans Lane and head south to access the A259. Both routes would involve routing HGV traffic through residential village areas and therefore need to be carefully considered on balance. The option that has previously been supported would to route traffic along

	Cheesemans Lane to the A259 so as to avoid the villages of Funtington, Ashling and Westbourne.
Services and utilities	Wastewater infrastructure crosses the site and an easement is required (6-13m) is required for access. Diversion may be possible at the developer's expense subject to a feasible alternative route being available.
Amenity	There are residential buildings to the north, west and south of the site.
	The village of Woodmancote lies to the south of the site.
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	Former mineral workings lie adjacent to the site. A number of potential sites in close proximity, the nearest being 500m north east (Common Road East, Common Road West, Slades Field, and Funtington West) which would require consideration regarding impact on the highway network.
Airport safeguarding	Within Goodwood aeronautical safeguarding zone. Goodwood Aerodrome have no comments or objections to this site.

#### Common Road West

## M/CH/1B



Site description		
District/Parish	Chichester/Funtington	
Area (ha)	7.36	
Mineral type	Sharp sand and gravel	
Potential yield	254,000 tonnes	
Current use	Agriculture	
Owner	Hanson	
Potential operator	Hanson	

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Plan	nning history and current permissions
Extension to existing site or new site	New site
Planning policy	Within Chichester District Rural Policy Area where development is restricted to proposals complying with a number of other policies.
Planning history	The site was not allocated in the Minerals Local Plan (2003). The site was considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) subject to an assessment of the impact on the water environment and mitigation of impact on PRoW.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

Fit with the spatial strategy			
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
Can it be delivered?			
Availability	The site is in single ownership (Hanson) and is considered to be available.		
Deliverability	Site considered to be deliverable. Potential for working in conjunction with Common Road East, Funtington West, and Slades Field.		

	Key Criteria
Landscape and visual designations	The site is located less than 600m south of the SDNP boundary.
	The site is considered to have a <b>Low-Medium</b> sensitivity to extraction. Though the landscape character and the landscape value of the site are judged to be low, the high visibility of the site in the surrounding landscape and intervisibility with the South Downs makes it of slightly higher sensitivity. While development of mineral workings in this location has the potential to be visually intrusive on surrounding areas, there is scope to reduce visibility into the site from the immediate vicinity through screening or filtering of views with vegetation (based on the 2011 study).
	The site is considered to have a <b>Moderate-High</b> capacity to accommodate mineral activities (based on 2011 Study).
	Data indicates that the site is within an area of medium tranquility and experiences some noise intrusion (based on 2011 Study).
Nature conservation and geodiversity designations	The site is approximately 2.7km south west of the Kingley Vale SAC/SSSI.
	The Solent Maritime SAC and, Chichester and Langstone Harbours SPA/Ramsar are around 3km south of the site.
	The site is approximately 1.7km east of the River Ems SNCI and 1.5km north west of the Newells Lane pond and meadows, Hambrook SNCI.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that air quality was a pathway requiring consideration due to the potential for increased mineral traffic movements within close proximity to European designated sites. It was concluded that this mineral site will not have an adverse effect on air quality at any

	European designated sites within West Sussex but that the transport assessments for this mineral sites should take into account any impacts on sites in Hamsphire if there will be a significnat increase in vehicle movements on the A27.	
Historic environment designations	The land includes the site of one of the runways of the World War 2 Funtington Advanced Landing Ground: buried wartime airfield features may survive. Roman finds have previously been reported from the former airfield site, and finds of prehistoric worked flir and pottery have been recovered from near the site. Other archaeological finds may lie within the site. The site may overlie ancient prehistoric shoreline deposits.	
	Acceptable provided that potential impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological and geoarchaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.	
Water environment	The site is within Flood Zone 1	
(including flooding)	<ul> <li>Most of site at low risk of surface water flooding with 5% at higher risk</li> </ul>	
	<ul> <li>High risk of groundwater flooding therefore careful consideration of depth of working and de-watering is required</li> </ul>	
	<ul> <li>Flood Vulnerability Classification: water-compatible</li> </ul>	
	<ul> <li>Source Protection Zone 2 (Hairspring watercress abstraction/spring)</li> </ul>	
	<ul> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>	
	Local drainage issues have been reported	
	<ul> <li>EA maps indicates the site is within groundwater vulnerability zone: Major Aquifer (intermediate)</li> </ul>	
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.	

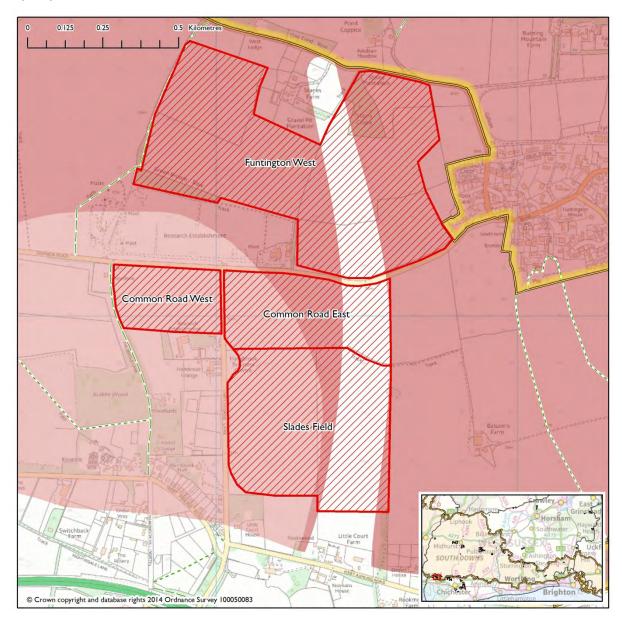
	Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).	
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required	
Soil quality	The site contains Grade 3b best and most versatile agricultural land	
Public rights of way	Potential impact on Public Bridleway 254, which is adjacent to the western boundary of the site.	
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.	
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.	
Transport and access	The site has frontages onto Common Road and Cheesemans Lane. Access from either is possible without any significant consequences and visibility would be achievable to the appropriate standards Potential access from Common Road or Cheesemans Lane.	
	In terms of general access routing, there are two broad options, either to use Common Road/B2136/B2147 to head east and west, or to use Common Road/B2136/Cheesemans Lane and head south to access the A259. Both routes would involve routing HGV traffic through residential village areas and therefore need to be carefully considered on balance. The option that has previously been supported would be to route traffic along Cheesemans	

	Lane to the A259 so as to avoid the villages of Funtington, East Ashling and Westbourne. The final routes would need to be part of a routing agreement and would be dependent upon demand and subsequent trip distribution.  Access to the site using road network is approximately 9km from the A27 and 10km from A286.	
Services and utilities	Scottish and Southern high voltage cables located on the northern and eastern boundary of site.	
Amenity	Residential properties adjacent to the west and south of the site.	
	The site is 1km south west of Funtington village.	
	A research establishment lies to the north of the site and buisness centre to the south.	
	The site is located approximately 2km north west of Funtington Primary School.	
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.	
Cumulative impact	There are no current mineral operations in the area around this site. Three other potential site allocations lie in close proximity to the site;	
	<ul> <li>Slades Field</li> <li>Common Rd East</li> <li>Funtington West</li> <li>Woodmancote (500m west)</li> </ul>	
	Cumulative impact arising from the operation of these five sites (should they be worked together) must be considered, particularly including, but not limited, to highway safety	

	and capacity.
Airport safeguarding	Within Goodwood aeronautical safeguarding zone. Goodwood Aerodrome have no comments or objections to this site.

#### Common Road East

## M/CH/1C



Site description		
District/Parish	Chichester/Funtington	
Area (ha)	13.5	
Mineral type	Sharp sand and gravel (concreting aggregate)	
Potential yield	422,500 tonnes	
Current use	Agriculture	
Owner	Mr and Mrs Baird	
Potential operator	Hanson	

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.	
Plan	nning history and current permissions	
Extension to existing site or new site	New site	
Planning policy	Within Chichester District Rural Policy Area where development is restricted to proposals complying with a number of other policies. Located in a Zone of Visual Influence of Chichester Cathedral Spire.	
Planning history	The site was not allocated in the Minerals Local Plan (2003). The site was considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) subject to an assessment of the impact on the water environment.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.	

	Fit with the spatial strategy		
Opportunity to rest beneficially?	ore land	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Can it be delivered?			
Availability	The site is in single ownership (Mr Baird) and Hanson has the right of pre-emption over the land. The site is considered to be available at present.		
Deliverability	Site considered to be deliverable. Potential for working in conjunction with Common Road West, Funtington West, and Slades Field.		

	Key Criteria
Landscape and visual designations	The site is located approximately 300m south and west of SDNP boundary.
	Overall, the site is considered to have a <b>Low-Medium</b> sensitivity to extraction. The landscape character and the landscape value of the site is judged to be low, but the high visibility of the site in the surrounding landscape and intervisibility with the South Downs makes it of slightly higher sensitivity. While development of mineral workings in this location has the potential to be visually intrusive from surrounding areas, there is scope to reduce visibility into the site from the immediate vicinity through screening or filtering views with vegetation (based on the 2011 study).
	The site is considered to have a <b>Moderate-High</b> capacity to accommodate mineral activities (based on the 2011 study).
	Data indicates that the site is within an area of medium tranquillity, with a lower tranquillity to the east, and experiences some noise intrusion (based on the 2011 Study)
Nature conservation and geodiversity designations	The site is approximately 2.7km south west from the Kingley Vale SAC/SSSI,
	The site is approximately 2.5km north of the Solent Maritime SAC and, Chichester and Langstone Harbours SPA/Ramsar.
	The site is approximately 1.7km east of the River Ems SNCI and 1.4km north of the Newells Lane pond and meadows, Hambrook SNCI.
	Site is close to rare species including bee and other orchinds, great crested newts and bats.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat

	Regulation Assessment carried out in 2011. The initial screening exercise identified that air quality was a pathway requiring consideration due to the potential for increased mineral traffic movements within close proximity to European designated sites. It was concluded that this mineral site will not have an adverse effect on air quality at any European designated sites within West Sussex but that the transport assessments for this mineral sites should take into account any impacts on sites in Hamsphire if there will be a significnat increase in vehicle movements on the A27.
Historic environment designations	Near Funtington Conservation Area: need to protect public views out of the Conservation Area (WS Structure Plan Saved Policy CH4(b)(2)). Near a Listed Building (Balsams Farmhouse). Need to protect settings of Listed Building (WS Structure Plan Saved Policy CH5(a). The land includes the site of one of the runways of the World War 2 Funtington Advanced Landing Ground: buried wartime airfield features may survive. Roman finds have previously been reported from the former airfield site, and finds of prehistoric worked flint and pottery have been recovered from near the site. Other archaeological finds may lie within the site. The site may overlie ancient prehistoric shoreline deposits.  Acceptable provided that visual impacts upon the nearby Conservation Area and Listed Building, and upon any buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological, historic building visual and Conservation Area visual impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.
Water environment (including flooding)	<ul> <li>The site is within flood Zone 1</li> <li>Low to medium risk of flooding from land</li> <li>Most of the site is at low risk of surface water flooding, 5% at higher risk</li> <li>High risk of groundwater flooding – careful consideration of de-watering and depth of extraction is needed.</li> </ul>
	Flood Vulnerability Classification: water-compatible

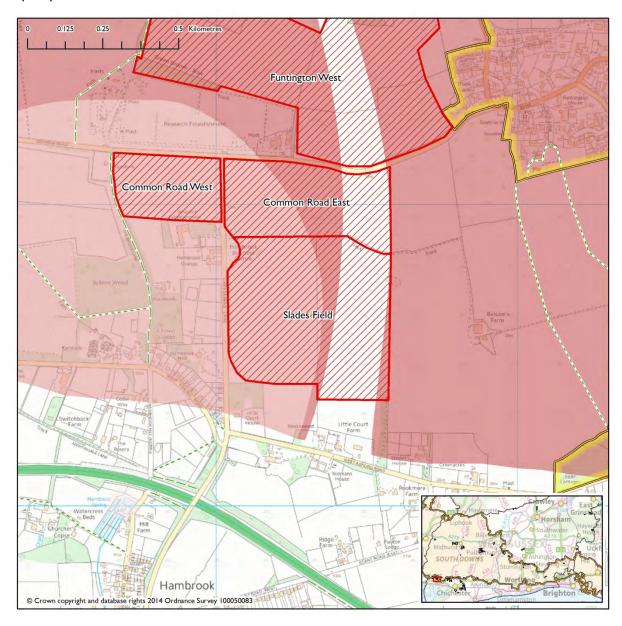
	<ul> <li>Western end of site in Source Protection Zone 2/3 (Hairspring watercress spring/abstraction).</li> </ul>	
	<ul> <li>Local drainage issues have been reported.</li> </ul>	
	<ul> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>	
	<ul> <li>EA maps indicates the site is within groundwater vulnerability zone: Major Aquifer (intermediate)</li> </ul>	
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required	
Soil quality	The site contains Grade 3b best and most versatile agricultural land.	
Public rights of way	No PRoW near the site.	
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.	
Transport (including access)	The site has frontages onto Common Road and Cheesemans Lane. Access from either is possible without any significant consequences and visibility would be achievable to the appropriate standards In terms of general access routing, there are two broad options, either to use Common Road/B2136/B2147 to head east and west, or to use Common Road/B2136/Cheesemans Lane and head south to access the A259. Both routes would involve routing HGV traffic through residential village areas and therefore need to be carefully considered on balance. The option that has previously been supported would be to route traffic along Cheesemans Lane to the A259 so as to avoid the villages of Funtington, East Ashling and Westbourne. The final routes would need to be part of a routing agreement and would be dependent upon demand and subsequent trip	

	distribution.
	Access to the site using road network is approximately 9km from A27 and 10km from A286
Services and utilities	Southern Gas LHP main runs across the eastern end of the site.
Amenity	The village of Funtington is located to the east of the site.
	A farm building lies to the south east of the site.
	A research establishment is located to the north of the site.
	There is a residential property to the south east.
	The site is located approximately 1.4km north west of Funtington Primary School.
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There are no current mineral operations in the area around this site.
·	Three other potential site allocations lie in close proximity to this site:
	<ul> <li>Common Rd West</li> <li>Slades Field</li> <li>Funtington West</li> <li>Woodmancote (800m west)</li> </ul> The cumulative impact arising from the operation of these five sites (should they be worked together) must be considered, particularly including, but not limited, to highway safety and capacity.

All DOLL Salequal dino	The site is within Goodwood aeronautical safeguarding zone.	Goodwood Aerodrome have
	no comments or objections to this site.	

# Slades Field

## M/CH/1D



Site description	
District/Parish	Chichester/Funtington
Area (ha)	26
Mineral type	Sharp sand and gravel
Potential yield	851,400 tonnes
Current use	Agriculture
Owner	Hanson own the Western Part of the area, adjacent to Cheesemans Lane. The remainder is part of Balsam's Farm. The land not owned by Hanson is covered by a right of pre-emption in favour of ARC Minerals (which is

	now part of the same group of companies as Hanson).
Potential operator	Hanson
Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Planning history and current permissions	
Extension to existing site or new site	New site
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	The site was not allocated in the Minerals Local Plan (2003) but has not come forward to date due to the viability of the site size. The site was considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) subject to an assessment of the impact on the water environment.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

	Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations	
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations	
Can it be delivered?		
Availability	The site is in dual ownership (Hanson and other) and is considered to be available.	

Deliverability	The site is considered to be deliverable.
	This site could potentially be worked in conjunction with Common Road West, Common Road East, and Funtington West (which are also being considered for allocation through the MLP).

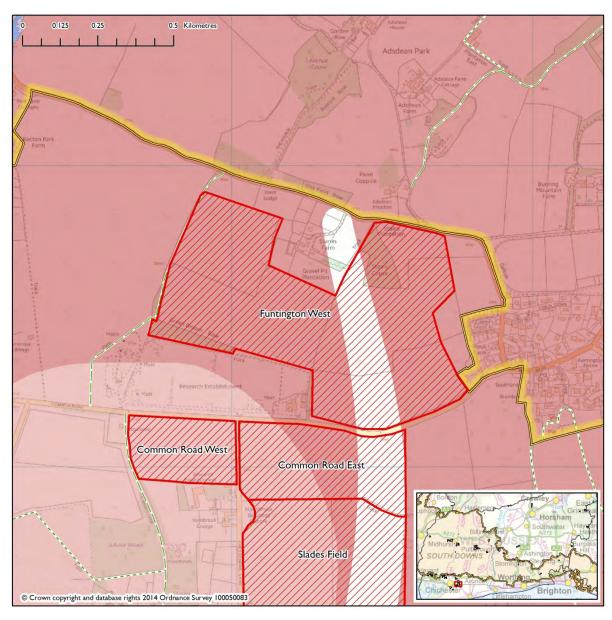
Key Criteria	
Landscape and visual	The site is located 600m south of the SDNP boundary.
designations	The site is considered to have a <b>Low-Medium</b> sensitivity to extraction. Although the landscape character and the landscape value of the site are judged to be low, the high visibility of the site in the surrounding landscape and intervisibility with the South Downs and nearby settlements makes it of slightly higher sensitivity. While development of mineral workings in this location has the potential to be visually intrusive to surrounding areas, there is scope to reduce visibility into the site from the immediate vicinity, through screening or filtering of views with vegetation (based on 2011 Study).
	The site is considered to have a <b>Moderate-High</b> capacity to accommodate mineral activities (based on 2011 Study).
	Data indicates that the site is within an area of medium tranquility, with lower tranquility to the south, and experiences some noise intrustion (based on 2011 study)
Nature conservation and	The site is approximately 3km south west from the Kingley Vale SAC/SSSI,
geodiversity designations	The site is approximately 2.5km north of the Solent Maritime SAC and, Chichester and Langstone Harbours SPA/Ramsar.
	The site is approximately 2km east of the River Ems SNCI and 800m north of the Newells Lane pond and meadows, Hambrook SNCI.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that air quality was a pathway requiring consideration due to the potential for increased mineral traffic movements within close proximity to European designated sites. It was concluded that this mineral site will not have an adverse effect on air quality at any

	European designated sites within West Sussex but that the transport assessments for this mineral sites should take into account any impacts on sites in Hamsphire if there will be a significnat increase in vehicle movements on the A27.
Historic environment designations	The site is 500m south west of the Funtington conservation area. The site is 300m west of a Grade II Listed Building (Balsams Farmhouse).
	Known and possible archaeological sites and finds in the vicinity of the land, and the site may overlie buried ancient shoreline deposits. Some archaeological non-invasive and invasive field evaluation (low-level sampling) in 1998 on the western half of the site only revealed no datable ancient archaeological features, a few prehistoric finds.
	Acceptable provided that visual impact upon nearby Listed Building, and upon buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological and historic buildings impact assessment required (archaeological desk-based assessment and further non-invasive and invasive field evaluation in accordance with 2009 sampling standards), surveys and reports to be carried out and submitted with any planning application.
Water environment	The site is within Flood Zone 1
(including flooding)	<ul> <li>Most of site at low risk of surface water flooding, 5% at higher risk.</li> </ul>
	High risk susceptibility of ground water flooding therefore careful consideration of depth of working and dewatering is required
	Flood Vulnerability Classification: water-compatible
	<ul> <li>Source Protection Zone 2/3 (Hairspring watercress abstraction/spring).</li> </ul>
	<ul> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>
	EA maps indicates the site is within groundwater vulnerability zone: Major Aquifer (intermediate)
	Site is close to River Ems.

	Local drainage issues have been reported.
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	The site contains Grade 3b best and most versatile agricultural land.
Public rights of way	The site is 250m east of bridleway 254.  Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Potential access from Cheesemans Lane, however, a shared access with Common Road East (on to Common Road) would be preferable.
	In terms of general access routing, there are two broad options, either to use Common Road/B2136/B2147 to head east and west, or to use Common Road/B2136/Cheesemans Lane and head south to access the A259. Both routes would involve routing HGV traffic through residential village areas and therefore need to be carefully considered on balance. The option that has previously been supported would be to route traffic along Cheesemans Lane to the A259 so as to avoid the villages of Funtington, East Ashling and Westbourne. The final routes would need to be part of a routing agreement and would be dependent upon demand and subsequent trip distribution. Access to/from the site using the road network is approximately 9km from the A27 and 10km from the A286
Services and utilities	Southern gas LHP main runs along eastern edge of the site. Underground BT plant along the edge of the site.

Amenity	There are residential properties to the south, east and west of the site.
	There is a research establishment located to the north of the site and business centre to the north west of the site.
	The site is located approximately 1.3km west of Funtington Primary School.
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There are no current mineral operations in the area around this site.
Note: The Transport Assessment will include consideration of any cumulative highway safety and capacity impacts arising from the development of mineral sites and other relevant development.	<ul> <li>Three other potential site allocations lie in close proximity, to the north of this site:</li> <li>Common Rd East</li> <li>Common Rd West</li> <li>Funtington West</li> <li>The cumulative impact arising from the operation of these four sites (should they be worked together) must be considered, particularly including, but not limited, to highway safety and capacity.</li> </ul>
Airport safeguarding	The site is within the Goodwood aeronautical safeguarding zone, however Goodwood Aerodrome have no comments or objections to this site.

## Funtington West M/CH/1G



Site description	
District/Parish	Chichester/Funtington
Area (ha)	Approx. 46.55ha
Mineral type	Sharp Sand and Gravel
Potential yield	1.55 million tonnes
Current use	Agriculture
Owner	Hanson

Potential operator	Hanson
Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Planning history and	d current permissions
Extension to existing site or new site	New site
Planning policy	Within Chichester District Rural Policy Area.
Planning history	Site was not allocated in the Minerals Local Plan 2003. Site was identified in the Minerals DPD Issues and Options November (2005) but was not considered acceptable due to landscape impact.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

Fit with the spatial strategy		
Opportunity to rest land beneficially?	ore	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities?		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network?		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?		
Availability	Site owr	ned by Hanson
Deliverability	The site	is considered to be deliverable.

Key Criteria		
Landscape and visual designations	The northern boundary of the site, along the B2146, abuts the SDNP boundary.  The site was not subject to an assessment through the 2011 landscape capacity study. However the sites adjacent to Funtington West (Common Road East, Common Road West, and Slades field) were all considered to have a <b>Low-Medium</b> sensitivity to extraction, and a <b>Moderate-high</b> capacity to accommodate mineral activities.  Site is within Zone of Visual Influence of the Chichester Cathedral Spire.	
Nature conservation and geodiversity designations	The site is 2km south of Kingley Vale SAC/SSSI, 3km north of Solent Maritime SAC and Chichester and Langstone Harbours SPA/Ramsar.  The site is 1.5km south of the Lordington Copse, Watergate Hangar, West Marden Copse and Nore Down SNCI; 1.5km east of the River Ems SNCI; and 2km east of Hams Copse, Aldsworth SNCI.  Near Rare Species Inventory. The site contains two areas of semi natural Ancient Woodland (SU795086 and SU787084) and a buffer of between 20 and 100m between mineral working and Ancient Woodland would be required.  This site was not subject to Habitat Regulation Assessment screening in 2010/11.	
Historic environment designations	The site adjoins the Funtington Conservation Area, and lies close to a number of Grade II listed Buildings (including West Lodge and Adsdean Lodge to the north).  Finds of prehistoric worked flint and pottery have been recovered within the site, and other buried prehistoric features and finds have previously been reported to the northwest from near the site. Other archaeological finds may lie within the site. The north-west corner of the site lies close to the projected alignment of the buried Slindon Raised Beach cliff line, a zone where, further east, internationally important early prehistoric	

	archaeological deposits exist. Similar artefact-bearing deposits could exist within this land.  Acceptable provided that visual impacts upon the nearby Conservation Area and Listed Buildings can be buffered, and impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological, historic building visual and Conservation Area visual impact assessments required (archaeological desk-based assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.
Water environment	<ul> <li>The site is in Flood Zone 1</li> <li>Most of site at low risk of surface water flooding, 5% at higher risk</li> <li>Site at moderate risk of groundwater flooding with 25% at higher risk therefore depth of working and de-watering need to be considered</li> <li>The site is within Source Protection Zone 3 (north of the hairspring watercress abstraction/spring)</li> <li>EA maps indicate the site is within groundwater vulnerability zones: Major Aquifer (intermediate)</li> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation</li> <li>Local drainage issues have been reported</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required

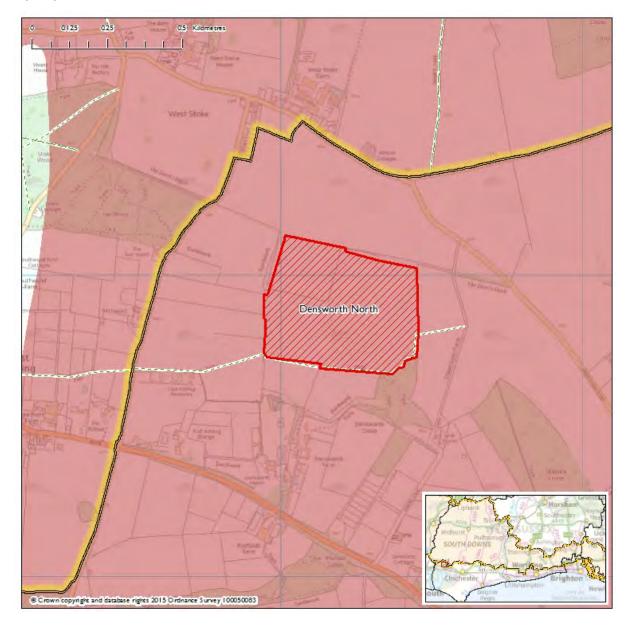
Soil quality	
	The site contains both Grade 2 and 3 best and most versatile agricultural land.
Public rights of way	Public Bridleway 254 runs along the western boundary of the site.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Possible access from Common Road. Direct access into the site would need to be carefully considered as the alignment of Common Road produces high traffic speeds.  In terms of general access routing, there are two broad options, either to use Common Road/R2136/R2147 to boad east and west, or to use Common Road/R2136/Choosemans
	Road/B2136/B2147 to head east and west, or to use Common Road/B2136/Cheesemans Lane and head south to access the A259. Both routes would involve routing HGV traffic through residential village areas and therefore need to be carefully considered on balance. The option that has previously been supported would be to route traffic along Cheesemans Lane to the A259 so as to avoid the villages of Funtington, East Ashling and Westbourne. The final routes would need to be part of a routing agreement and would be dependent upon demand and subsequent trip distribution.
	Access to the site using road network is approximately 9km from A27 and 10km from

	A286
Services and utilities	Southern Gas LHP main runs across site
	Scottish and Southern high voltage cable runs along the boundary of the site
	Overhead and underground BT plant runs along the edge of the site
	Above Hairsprings Watercress Beds (Portsmouth Water)
	Portsmouth Water main trunk line runs under part of site.
	Private water supply to Stanes Farm and Stanes Cottage runs under part of site.
Amenity	There are residential properties to the north of the site.
	A research establishment is adjacent to the southern boundary of the site
	The site is west of the village of Funtington.
	The site is located approximately 1.4km north west of Funtington Primary School.
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There are no current mineral operations in the area around this site.
	Three other potential site allocations lie in close proximity, to the site:
	<ul><li>Slades Field</li><li>Common Rd East</li></ul>

	<ul> <li>Common Rd West</li> <li>Woodmancote (900m west)</li> <li>The cumulative impact arising from the operation of these five sites (should they be worked together) must be considered, particularly including, but not limited, to highway safety and capacity.</li> </ul>
	The site is located to the east of an area with a history of mineral working and there are sites allocated in the adopted Mineral Local Plan (2003) located to the south and west.
Airport safeguarding	Falls within the Goodwood aeronautical safeguarding zone.

#### Densworth North

# M/CH/2A



Site description	
District/Parish	Chichester/Funtington
Area (ha)	18.82
Mineral type	Sharp sand and gravel
Potential yield	700,000 tonnes
Current use	Agriculture
Owner	Mr Sadler
Potential operator	Dudman Group Ltd

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Plan	nning history and current permissions
Extension to existing site or new site	New site
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	The site was not allocated in the Minerals Local Plan (2003). The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) due to landscape impact.

Fit with the spatial strategy			
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations		
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations		
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations		
	Can it be delivered?		
Availability	Further information required, as it is unknown whether the landowner supports the development if the site at this stage.		
Deliverability	Further information is required.		

Key Criteria	
Landscape and visual designations	The SDNP boundary is 400m north and west of the site.
	The site is considered to have a <b>Medium to High sensitivity</b> to extraction. Although the site is judged to be of medium landscape and visual sensitivity, there are features of higher sensitivity, including the intervisibility with the South Downs, the Devil's Ditch, earthworks and areas of ancient woodland. The site is therefore considered to be of medium to high sensitivity overall (based on 2011 Study).
	The site is considered to have a <b>Low-Moderate</b> capacity to accommodate mineral activities (based on 2011 Study).
	Data indicates that the southern area of the site experiences some noise intrustion in relation to the A2178 to the sothwest, although more breoadly the site is within an area of medium tranquility (based on 2011 Study)
Nature conservation designations	The site is 2km south of the Kingley Vale SAC/SSSI.
ŭ	The site is 3km west of the Trundle SNCI.
	The site abuts Densworth Copse to the south east, a semi natural ancient woodland A buffer of between 20 and 100metres would be required.
	This site was 'screened out' of the previous Habitat Regulation Assessment carried out in 2010/11 becase there was considered to be no scope for adverse impacts on the Kingley Vale SAC and no pathway connecting with any other European sites.

#### Site is 300m to the south of Densworth House, a grade II listed house, surrounded by Historic environment ancient iron age entrenchments. designations Strongly recommended that early archaeological assessment takes place should this site go forward – the site includes part of former late Iron Age entrenchment (now buried) and borders other scheduled sections of late Iron Age entrenchments - it should be borne in mind that if field assessment established that buried archaeological remains were sufficiently important to be considered part of the existing designated, scheduled monument then mitigation measures to exclude from the area of extraction (which could include a suitable 'buffer zone') might need to be considered. Field evaluation should be undertaken pre-determination and the results made available to consider at the application stage. Acceptable only if there are unworked buffer areas around the Scheduled Ancient Monuments, and the buried linking ditch between them, in order to protect the fabric and setting of the nationally important monument. Acceptable also provided that the potential visual impact upon the settings of Listed Buildings on Downs Road, and impacts upon buried archaeological remains can satisfactorily be mitigated. Archaeological and geoarchaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation) and historic building visual impact assessment, surveys and reports to be carried out and submitted with any planning application. Water environment Flood Zone 1 (including flooding) Low risk of flooding from land • Negligible risk of groundwater flooding with 10% at higher risk therefore careful consideration of depth of working and dewatering is required

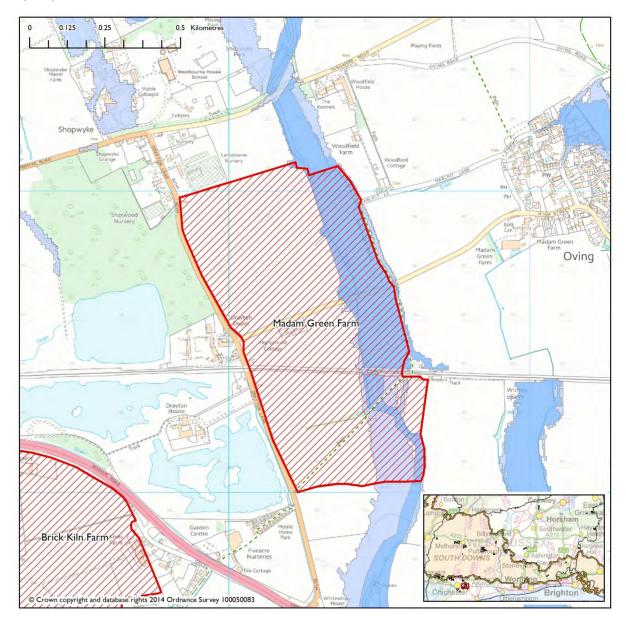
Flood Vulnerability Classification: water-compatible

	Source Protection Zone 2 (Fishbourne Public Water Supply borehole).
	<ul> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>
	<ul> <li>EA maps indicates the site is within groundwater vulnerability zone: Major Aquifer (intermediate)</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment. If HGV traffic were routed along the A27 from the west, traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	The site contains both Grade 2 and 3 best and move versatile agricultural land.
Public rights of way	Public Footpath 268 runs along the southern boundary of the site.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Access to the site using road network is less than 3km A286 (ALR). Traffic distribution will determine likely traffic routing, but utilising an access to the A286 it would be presumed that most traffic would travel southwards to Chichester to gain access to the A27.

	Routing via Salthill Road, Fishbourne would not be acceptable due to the large number of residential properties that would be affected by the traffic routing. The junction of the B2136/Salthill Road is not adequate to support a significant increase in HGV movements.  Access to the site from the east via Lavant is also not possible because of the narrow existing road layout. Similarly access from the west should be resisted. Access to the site would require going through adjacent agricultural land as the site had no frontage to the public highway.
Services and utilities	None identified
Amenity	Residential dwellings to the north, south and west of the site
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There has been mineral working in the area historically. Sites in the immediate area were worked between 1969 and 1991.
Airport safeguarding	The site is within the Goodwood aeronautical safeguarding zone and is in line with circuit pattern for runways 06, 24, 28 and 10.
	There are no objections, however no tall structures or activity attracting birds should take place at the site.

#### Madam Green Farm

## M/CH/4CDE



Site description		
District/Parish	Chichester/Oving	
Area (ha)	57	
Mineral type	Sharp sand and gravel (concreting aggregate)	
Potential yield	1.5 million tonnes	
Current use	Agriculture	

Owner	The majority of the site is owned by Church Commissioners for England. There are some small parcels of land within other ownership (National Rail, Highways, Environment Agency and individual propreties) which would be excluded from the extraction site.	
Potential operator	Dudman Group Ltd	
Site specific information (operational and restoration considerations).	Restoration options are (1) to retain the quarry faces and void and to restore in the main to conservation with a range of different habitats and (2) to infill using inert, restoration material and so raise levels with a view to some form of amenity afteruse	
Planning history and current permissions		
Extension to existing site or new site	New site	
Planning policy	The site is located in a Strategic Gap (RE6) where mineral extraction may be acceptable provided there is no alternative location where development could meet these needs.	
Planning history	Part of the land was subject to a planning application for sand and gravel extraction in 1972; this application was refused. This decision was appealed but this was dismissed in 1974. The primary issue was loss of high grade agricultural land. A further application was made in 1998 but this was subsequently withdrawn.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process. This site is an amalgamation of three individual sites which have been considered in the past: Shopwyke South, Madam Green Farm West, and Withies Farm West.	

Fit with the spatial strategy		
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	

Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Can it be delivered?		
Availability	The site is in single ownership (Church Commissioners) and is considered available.	
Deliverability	The site is considered deliverable by both landowner and potential operator. Half of Madam Green Farm is under a long term lease for farming.	

Key Criteria	
Landscape and visual designations	The site is considered to have a <b>low-medium</b> sensitivity to extraction. The high visibility of the site in the surrounding landscape makes it of slightly higher sensitivity. While development of mineral workings in this location has the potential to be visually intrusive to surrounding areas, there is scope to reduce visibility into the site from the immediate vicinity through screening or filtering of views with vegetation (based on 2011 Study).  The site is considered to have a overall <b>Moderate-High</b> capacity to accommodate mineral activities (based on 2011 Study).  The site is located 2.5km south of the SDNP.  Site is within the zone of visual influence of the Chichester Cathedral Spire and the zone of visibility from the Trundle.
Nature conservation and geodiversity designations	None  This site was 'screened out' of the previous Habitat Regulation Assessment carried out in 2010/11 becase there was considered to be no scope for adverse impacts on European sites.
Historic environment designations	The site lies near a number of Listed Buildings including Grade II* Shopwyke Hall and Grade II East Lodge, both on Tangmere Road. Archaeological finds of prehistoric and Roman date have been recorded to the north and south of the site: some of these concentrations of archaeological features may extend into the site. Also, on a large area such as this within the archaeologically rich Sussex coastal plain, the possibility should be taken into account that further, presently unknown archaeological remains may exist

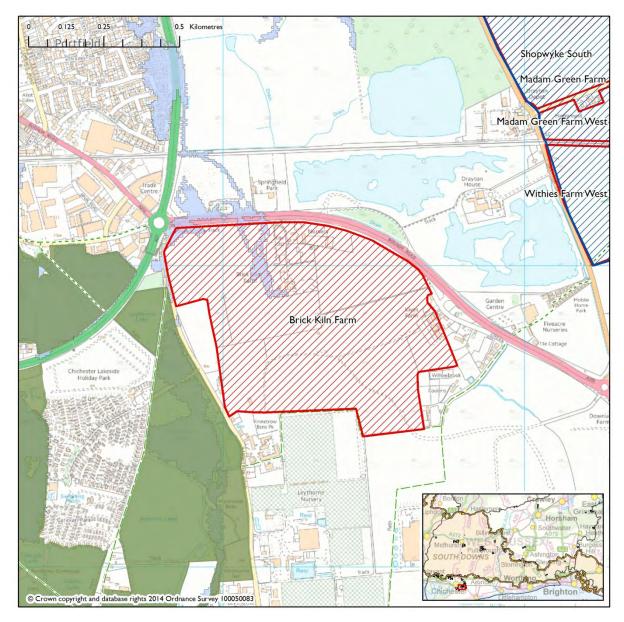
	within the site. The site may overlie early prehistoric shoreline deposits.
	Acceptable provided that visual impact upon the nearby Listed Building, and impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), and Historic Building visual impact assessment required. Surveys and reports to be carried out and submitted with any planning application.
Water environment (including	<ul> <li>Fluvial Flood Zone 2 and 3b (Part of Site)</li> </ul>
flooding)	<ul> <li>Low risk of flooding from land</li> </ul>
	<ul> <li>30% of land at high risk of groundwater flooding and 50% at moderate risk Flood Vulnerability Classification: water-compatible</li> </ul>
	<ul> <li>Adj. to Lavant Flood Alleviation Scheme- buffer zone and appropriate flood storage would be required which will reduce workable area of the site</li> </ul>
	<ul> <li>Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.</li> </ul>
	<ul> <li>EA maps indicates the site is within groundwater vulnerability zones: Minor Aquifer (high) and Minor Aquifer (intermediate)</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	The site contains grades 1-3 best and most versatile agricultural land.
Public rights of way	Public footpath 275 runs along the eastern boundary of the site and then cuts diagonally

	from east to west across the most southerly third of the site.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	Public footpath 277 runs also runs along the eastern site boundary.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Potential access from Drayton Lane (B2114) or Oving New Road which are within 1km from the A259 (ALR). Preffered access option would be route traffic southwards towards the A259, avoiding travel east down Oving New Road and Shopwyke Road to the north.
Services and utilities	Scottish and Southern cable runs along western edge of site.
	Global Crossing has fibre optic cables (contained in troughing) running alongside the railway line through this area.
	BT has a line that also runs along the railway track close to the site.
Amenity	There is a church in Oving close to site. There aredwellings within site whichwould need to be excluded from any extraction area.
	There are eesidential properties to the north, south, east and west of the site. A Business

	centre and depot are located to the west of the site.
	Westbourne House School is located 400m north of the site.
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There is a history of mineral working in the area.  Permitted mineral working at the Kingsham site is within 2.4km west of this site.  An allocated waste site (WLP 2014) at the Former Fuel Depot on Bognor Rd is 1km.  Brick Kiln Farm (also being considered) is located 500m to the south west of the site, however this is seperated by the A259.
Airport safeguarding	Within the Goodwood aeronautical safeguarding zone, however Goodwood Aerodrome have no comments or objections to this site.

### Brick Kiln Farm

### M/CH/4F



Site description	
District/Parish	Chichester/ North Mundham and Oving
Area (ha)	47
Mineral type	Sharp sand and gravel (concreting gravel)
Potential yield	1.5mt
Current use	Agriculture
Owner	West Sussex County Council

alternative location where development could meet these needs. The key diagram in Chichester District's	Potential operator	Unknown
Planning policy  Chichester District Local Plan (1999): The site is also located to the north of the Runcton Area for Horticultural Development and in the Strategic Gap (RE6) where mineral extraction may be acceptable provided there is no alternative location where development could meet these needs. The key diagram in Chichester District's Submission Core Strategy shows that the site is located in the A27 road and rail corridor.  Site was not allocated in the Minerals Local Plan (2003). The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) in advance of the Strategic Flood Risk	information (operational and restoration	agricultural restoration (subject to the importation of
Planning policy  Chichester District Local Plan (1999): The site is also located to the north of the Runcton Area for Horticultural Development and in the Strategic Gap (RE6) where mineral extraction may be acceptable provided there is no alternative location where development could meet these needs. The key diagram in Chichester District's Submission Core Strategy shows that the site is located in the A27 road and rail corridor.  Site was not allocated in the Minerals Local Plan (2003). The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) in advance of the Strategic Flood Risk	Plar	nning history and current permissions
Planning policy  located to the north of the Runcton Area for Horticultural Development and in the Strategic Gap (RE6) where mineral extraction may be acceptable provided there is no alternative location where development could meet these needs. The key diagram in Chichester District's Submission Core Strategy shows that the site is located in the A27 road and rail corridor.  Site was not allocated in the Minerals Local Plan (2003). The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) in advance of the Strategic Flood Risk	existing site or	New site
The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) in advance of the Strategic Flood Risk	Planning policy	located to the north of the Runcton Area for Horticultural Development and in the Strategic Gap (RE6) where mineral extraction may be acceptable provided there is no alternative location where development could meet these needs. The key diagram in Chichester District's Submission Core Strategy shows that the site is located in
The site has been promoted for inclusion in the Plan through the 2014 site nomination process.	Planning history	The site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) in advance of the Strategic Flood Risk Assessment.  The site has been promoted for inclusion in the Plan

	Fit with the spatial strategy
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations

Can it be delivered?	
Availability	The site is in single ownership (West Sussex County Council) and is considered available.
Deliverability	It is not known whether the site is deliverable as no operators have been approached at this stage.

	Key Criteria
Landscape and visual designations	The site is considered to have a <b>Low</b> sensitivity to extraction, and a <b>high</b> overall capacity to accommodate mineral activities. Data indicated that the site is within an area of medium tranquility and an area defined as 'distrubed by noise' (based on 2011 Study).  The site is located 3.5km south of the SDNP boundary.  Located in the Zone of Visual Influence of Chichester Cathedral Spire and the Zone of
	visibility from the Trundle.
Nature conservation and geodiversity designations	The site is adjacent to the Chichester Gravel Pits & Leythorne Meadow SNCI  This site was 'screened out' of the previous Habitat Regulation Assessment work carried out in 2010/11 becase there was considered to be no scope for adverse impacts on European sites.
Historic environment designations	The site lies 60 meters north of a grade II Listed Building (Vinnetrow Farmhouse).  Possible ring ditches (which often surrounded prehistoric ceremonial mounds) in the north-west corner of the site are visible on aerial photographs.  At the Drayton North and Drayton South gravel pits nearby to the north and north-east, concentrations of archaeological features of prehistoric and Roman date have been recorded, which may extend into the Brick Kiln Farm site.  As a large site on the archaeologically rich Sussex coastal plain, the presence below ground of other ancient archaeological features should be anticipated.

Brick Kiln Farm is the site of a 19th-century brickworks: any surviving buried remains of former kilns and associated brickworks structures may be of industrial archaeological interest.

The site also includes the northern part of the former World War 2 Merston Airfield: some structures belonging to the former Airfield, of military archaeological interest, survive within the site above ground, and may survive as buried foundations, below ground also. The site may also overlie buried ancient shoreline deposits. A Palaeolithic flint handaxe has been recorded from the site.

Acceptable provided that the potential impact upon Listed Buildings (visual impact upon their setting), and upon any buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.

# Water environment (including flooding)

- Most of the site is located in Flood Zone 1(5% in Flood Zone 2)
- Most of the site at low risk of flooding from land, 5% of site at higher risk
- 40% high risk of groundwater flooding, 50% at moderate risk
- Flood Vulnerability Classification: water-compatible
- The site is not located within a Source Protection Zone
- Phase 1 Qualitative Hydrological and Hydrogeological Risk Assessment recommended by the Environment Agency prior to allocation.
- EA maps indicates the site is within groundwater vulnerability zones: Major Aquifer (intermediate) and Minor Aquifer (high)
- EA maps indicates the site is within groundwater vulnerability zones: Minor Aquifer (high) and Minor Aquifer (intermediate)

Air quality	Site not located within an AQMA but off site traffic movements will need to be considered.  Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).  Mitigation measures should be employed to minimise the impact on noise and air quality. Transport assessments should include air quality assessments from lorries.
Soil quality	The site is within an area that contains Grade 1 best and most versatile land.
Public rights of way	Public Bridleway 2792 (North Mundham) runs along the southern boundary of the site.
	Bridleway 192 (North Mundham) lies to the west of the site (within 20 metres of the site boundary).
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	The site has frontages onto the A259 Bognor Road and Vinnetrow Road. The site appears to have two vehicular accesses onto the A259, with one of these serving the existing Brick Kiln Farm garden centre. The A259 is a dual carriageway with a 70mph speed limit, and access would be achieved onto the westbound carriageway. Vinnetrow Road has a 40mph limit speed limit and is single carriageway, although is wide enough to enable two HGVs to pass. Both roads join the A27 at the Bognor Road roundabout.
	There are limited local routes available that are inappropriate for or may provide a short

	cut for HGV traffic. It would be expected that HGV traffic would access the site only via the A259 and the A27.
Services and utilities	Scottish and Southern low voltage line runs across the eastern part of site. A high voltage Scottish and Southern cable also runs across the site.
	BT line present through the site.
	Virgin Media line lies in close proximity to the site (along A27 boundary).
Amenity	Business and residential uses lie in close proximity to the southern and eastern boundary of the site. Portfield Trade Centre and Quarry Lane industrial estate are to the West of the site, seperated by the A27 (Chichester by-pass).
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	There is a history of recent mineral working in the area (Drayton South).
	Permitted mineral working at the Kingsham site are within 1km west of this site.
	An allocated waste site (WLP 2014) at the Former Fuel Depot is on the opposite side of Bognor Rd. Madam Green Farm (also being considered) is located 500m to the north east of the site, however this is separated by the A259.
Airport safeguarding	The site is within the Goodwood aeronautical safeguarding zone, however Goodwood Aerodrome have no comments or objections to this site.

#### Soft Sand (including Silica Sand)

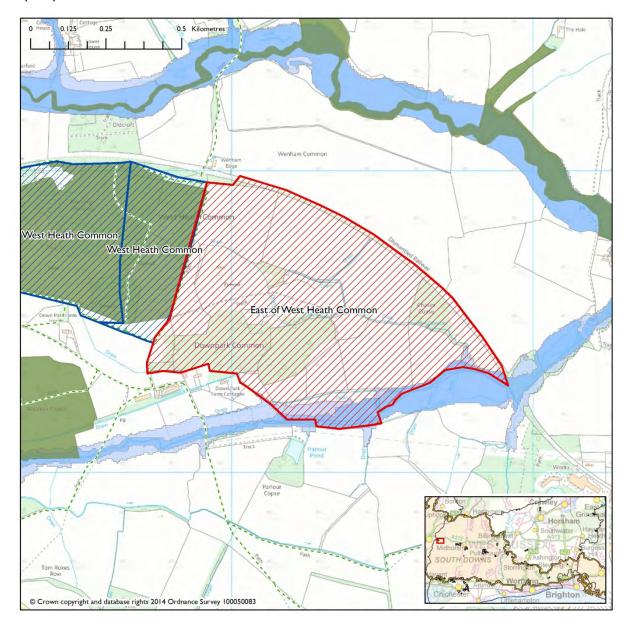
- 5.6 Sand is won from the Sandgate Formation and the Folkestone Formation which is worked in a number of locations in West Sussex. The variable grain size and low clay content mean that little or no processing is required to produce high quality building sands for mortar (soft sand). These sites largely lie within the South Downs National Park.
- 5.7 Soft sand is fine-grained sand in which the individual grains are well-rounded, imparting a relatively soft texture and free-flowing nature to the sand, bedrock, or 'solid' sand deposits comprising the cretaceous, Folkstone formation. This type of sand is used in mortars and plaster, and is collectively known as 'building sand'. There are currently no marine dredged supplies of soft sand which can provide a substitute source of supply to land-won supplies.
- 5.8 Silica sand is sand which is predominantly made up of silica grains. The Folkstone Formation of the Southern Weald has been little worked as a source of silica sand. It is generally used for non-aggregate purposes in a range of high value industrial and manufacturing applications such as glass manufacture, foundry sand, sands for brick facings, and water filtration.
- 5.9 Silica Sand is found in very few parts of the UK, it is a rare industrial mineral resource of national importance used for a number of specialist uses. These include the manufacture of glass, foundry sand and specialist sports (e.g. golf courses and polo pitches). In the south east of England, it occurs in the upper reaches of the Lower Greensand formation. There are no current silica sand sites classified as such in the Plan area. The only evidence to suggest such resources may exist is set out within a recent Review of Old Mineral Permission (ROMP) application at a site near Minsted, where the site operator has indicated that the material for extraction is 'industrial sand' and a submission as part of the site nomination process supplied evidence to suggest that the resource at a particular site was mainly silica sand.
- 5.10 Evidence is therefore required in order to ascertain if the classification of any of the existing soft sand sites, as well as any new sites that may come forward, may change from soft sand to silica sand. The distinction between silica & construction sands is based on their end-use applications and market specifications, and differences in the two raw materials in the ground.
- 5.11 There are 12 soft sand (including silica sand) proposals which are considered within this section of the study. 6 proposals are considered to be extensions to existing facilities and 6 are considered to be new sites.

### Map Legend



### East of West Heath Common (SDNPA)

## M/CH/7B



Site description	
District/Parish	Chichester/Harting and Rogate
Area (ha)	57.4
Mineral type	Sand – Folkstone Beds
Potential yield	2.0 mt
Current use	Agricultural site located to the north east and south east of scheduled ancient monuments. Farm buildings are located to the west of the site and the village of Nyewood is located to the east of the site.

Owner	Cemex
Potential operator	Cemex
Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Planning history and current permissions	
Extension to existing site or new site	Extension to existing site.
Planning policy	Within Chichester District Rural Policy Area where development is restricted to proposals complying with a number of other policies.
Planning history	Site was put forward in the site nomination process. It was not considered in the Minerals Local Plan (2003) or Minerals Development Plan Document Issues and Options (2005).

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
	Can it be delivered?
Availability	The site is within single ownership (CEMEX) and is therefore considered available.
Deliverability	The operator is interested in bringing the site forward after the existing site has been worked in approximately 8 years' time.

Key Criteria	
Landscape and visual designations	Within the South Downs National Park
	The site is considered to have a <b>High</b> sensitivity to extraction. Although the visual sensitivity is judged to be medium, the character and features of the site are representative of and contribute to the key characteristics and special qualities of the wider character area within the South Downs National Park (based on 2011 Study).
	Site has a <b>low</b> overall capacity for accommodating mineral development (based on 2011 Study).
	Data indicates that the site is within an area where tranquillity is rated slightly above medium and is within an area defined as 'disturbed by noise', bordering an 'undisturbed' area. (based on 2011 Study)

## Nature conservation and geodiversity designations

This site lies approximately 6km from Wealden Heaths Phase II SPA and East Hampshire Hangers SAC.

Furthermore, this site lies adjacent to a watercourse that drains to the river Rother and ultimately into the Arun Valley SPA/Ramsar. There is therefore a potential pathway for sediment to impact this European site.

West Heath Common SNCI (SNCI C64) lies to the west of the site and consists of the existing quarry and permitted extension area. The area within this SNCI is notable for supporting four species of reptile and important wet heath habitat. Records show it supports breeding nightjar and has supported woodlark. Enlarging heathland habitat would be likely to benefit these key heathland bird species.

The River Rother SNCI (SNCI C069 H53) follows the course of the River Rother approximately 0.3km north of the site. Brick kiln Copse, Pondtail Plantation, Millhanger Copse, Harting Pond and Stream SNCI (SNCI C048) is located approximately 0.2km to the southwest of the site.

Fyning Moor SSSI is located approximately 1.5km to the northeast of the site.

There are a number of Ancient Woodland sites in close proximity to the site (within 2km), the closest located within 25 metres of the eastern boundary of the site

Outside Heathland Reunited project area but could contribute to that network of sites.

This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that air and water quality were pathways requiring consideration due to the potential

for increased mineral traffic movements and the impact of sediment within close proximity to European designated sites. The Assessment stated that there is no reason to conclude that this proposed minerals site will have adverse effects on air quality at any European designated sites but transport assessments undertaken for this site should take into account any impacts on Wealden Heaths Phase 2 SPA or Woolmer Forest SAC if there will be a significant increase in vehicle movements on the A3 within 200m of those sites. It was further concluded that there are adequate safeguards in place to ensure that the proposed minerals sites will not have adverse effects on water quality at any European designated sites.

## Historic environment designations

The site contains a Scheduled Ancient Monument, comprising two probably prehistoric barrow mounds. There is presently no screening between the existing site and the SAM.

Within the site, worked flint of mesolithic date has been recovered during trial pit excavation in the 1980s. There may be further finds of this date. Also within the western part of the site are the sites of two former barrows (tumuli), and part of a third, part of the West Heath Bronze Age barrow cemetery. The barrow mounds themselves were fully recorded by archaeological excavation in the 1970s and 1980, and have been removed; but between and around the barrows there may be presently unknown archaeological features associated with the mounds (eg. Prehistoric fence lines, cremation burials). In the extreme north-west corner of the site there may be present early prehistoric rive terrace sands/ gravels, which may contain Early Palaeolithic flint tools, and contain microfossils relevant to understanding of ancient environment. Parlour Copse directly to the south (within 60 metres) of the site boundary could also be compromised.

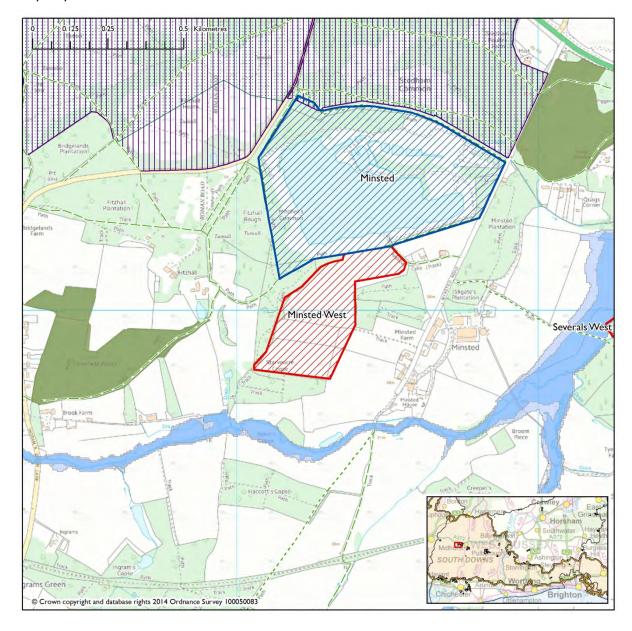
The site is considered acceptable provided that visual impacts upon adjacent Scheduled Ancient Monument, and impacts upon buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological, Scheduled Ancient Monument visual impact assessments required (archaeological desk-based

	assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.
Water environment (including flooding)	<ul> <li>Fluvial Flood Zone 2 and 3b (Part of Site)</li> <li>Low risk of flooding</li> <li>Negligible risk susceptibility to groundwater flooding</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Major Aquifer</li> <li>Depth of working and de-watering operations will need to be explored and assessed</li> <li>No working below groundwater level preferable</li> <li>Phase 1 qualitative Hydrological and Hydrogeological Risk Assessment prior to allocation</li> <li>Hydrological impacts, notably on the important wet heath habitat to the west,</li> </ul>
	would need to be assessed
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment. If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	Grade 3 and Grade 4 therefore unlikely to contain Best and Most Versitile agricultural land.
Public rights of way	Public Footpath 861 is located to the west of the proposed site which runs northwards along the eastern boundary of the existing quarry. This footpath forms part of the Serpent Trail.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment

	(a public path order – PPO) is proposed and legally confirmed.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Existing quarry site access off Durford Lane would be utilised.
	High-level transport assessment (2011) concluded:
	No highway concerns were raised to the extension of the site on the understanding that there would be no intensification of use or additional HGV movements beyond the current level. The same comments would apply for any future additional expansion.
	Consideration may need to be given to the desirability of extending the operation of the site in this location in terms of the impact on the amenity of local residents through continued HGV movements.
Services and utilities	None identified
Amenity	One residential property to the immediate north of the site. A number of residential properties farm buildings are located to the south of the site.
Cumulative impact	There is a history of mineral extraction at West Heath to the west of this site. The operator has indicated that this site would be worked following the working of the existing quarry.
Airport safeguarding	None

### Minsted West (SDNPA)

## M/CH/8A



Site description	
District/Parish	Chichester/Stedham with Iping
Area (ha)	9.96
Mineral type	Soft sand, Folkstone Beds
Potential yield	2mt
Current use	Agricultural field
Owner	All Souls College
Potential operator	Dudman Group Ltd

Site specific information (operational and restoration considerations).	The proposed restoration is to a mix of wet and dry uses with the emphasis on nature conservation and heathland. Operator has indicated that site will be worked as an extension to existing quarry and open water would be connected to existing water body.
Plan	nning history and current permissions
Extension to existing site or new site	Extension to existing site (Minsted)
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	The site was not allocated in the Minerals Local Plan (2003). The site was considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) subject to the reduction of the site to exclude the south west edge, provision of screening and buffers to the stream and SNCI, an assessment of the impact on the water environment and impact on public rights of way.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?	
Availability	The site is within single ownership. Operator indicated support from landowner.

Deliverability	The site was promoted through the site nomination process and the operator is interested in delivering the site after extraction at the existing Minsted sandpit comes
	to an end.

	Key Criteria
Landscape and visual designations	Within South Downs National Park
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction (based on 2011 Study).
	The site has low to moderate capacity overall for accommodating mineral extraction.
	Data indicates that the site is within an area of medium tranquillity. The south of the site is within an area defined as 'undisturbed' and the north of the site is in area defined as 'disturbed by noise' (based on 2011 Study).
Nature conservation and geodiversity designations	Henfield Wood SNCI (SNCI C123) lies approximately 200m to the west of this site, Stedham Common SNCI within 0.5km to northeast, and Severals Bog approximately 0.6km to the east. Ipping Common (SSSI and LNR) is 0.5km to the north of the site.
	Impact on water levels/ wet heath areas of Stedham Common within Iping Common SSSI needs to be considered.
	Buffers likely to be required to streams and woodland.
	This site lies approximately 6km from Singleton and Cocking Tunnel SAC. There is no scope for adverse impacts on this European site.
	Within Heathland Reunited project area therefore could contribute to that network of sites.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that

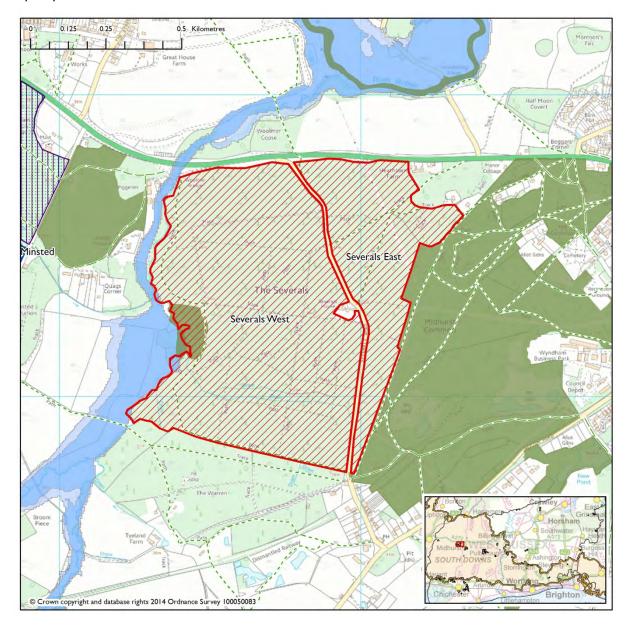
	water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. It was concluded that there
	are adequate safeguards in place to ensure that this site will not adverse effects on the Arun Valley SPA/Ramsar through reduced water quality.
Historic environment designations	Buildings, no longer existing, are shown in the south-western part of this site on a map of c. 1808-9: they may represent a former farmstead or barnyard. This is a large site on the Lower Greensand, a formation where earlier prehistoric occupation (e.g. Mesolithic flint scatters) is a common occurrence. On a large site such as this, the possibility that Mesolithic or other remains of ancient occupation may be present should be taken into account, eg. the sites of former barrows (tumuli).
	There are a number of Scheduled Monuments to the northwest of the site; Bowl Barrow on Fitzhall Rough is the closest at 200m away.
	Three listed buildings located to the southeast of the site (all within 0.5km). Two listed buildings to the northeast of the site, one within 0.5km and one just over 0.5km from the site. Also listed building to the west of the site, under 0.5km. There are three Conservation Areas close to the site, Stedham (1.2km northeast), Iping (1.7km north) and Trotton (1.8km northwest).
	Woolbeding Estate and Gardens is located north east of the site, managed by the National Trust.
	Acceptable provided that impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application.
Water environment (including flooding)	Flood Zone 1  Most of site at law risk of surface water flooding (loss than E0/ at higher risk).
	<ul> <li>Most of site at low risk of surface water flooding (less than 5% at higher risk)</li> </ul>

	<ul> <li>Negligible risk susceptibility of groundwater flooding</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Medium risk of flooding from artificial sources (close to existing quarry lake)</li> <li>Extension to existing site (Minsted) – current concerns that the operators at Minsted are not satisfying the planning conditions and as such there are potential hydrological impacts on Iping Common SSSI. The Environment Agency recommends that until the condition is met and any risks are understood and mitigated that a further extension to this site should not come forward.</li> </ul>
	<ul> <li>Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed. Prefer no working below groundwater table.</li> </ul>
	<ul> <li>Risk Assessment of the water environment (Qualitative Hydrological &amp; Hydrogeological Risk Assessment) - recommend phase 1 prior to allocation.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	This site is classed as Non-agricultural and part Grade 3 therefore unlikely to result in loss of BMV agricultural land.
Public rights of way	Bridleway 907 runs along the northern boundary of the proposed site (to the south of the existing quarry) joining Public Bridleway 909/4 to the northeast of the site. Footpath 910 is located 150m to the east of the site, bridleway 3358 and footpath 903are located 0.4km to the southeast.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it

	is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.  Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Access via the existing site (from Minsted Road).  The impact of additional HGV traffic on Midhurst and the villages to the west of the site should be suitably considered.
	High-level transport assessment (2011) concluded:  On the basis that this proposed allocation seeks an extension to the existing workings and on the understanding that there would be no intensification, it is considered that the further extension would be acceptable. It is recommended that this site and other potential soft sand sites in the area are sequentially developed (if allocated).
Services and utilities	Scottish and Southern line runs in close proximity to south east corner of site.  BT line runs through site. Southern Water - water mains along western boundary.
Amenity	There are some residential properties along Minsted Road.
Cumulative impact	There is a history of mineral working in close proximity to the site. Cumulative impact potential due to proximity to Severals East and West.
Airport safeguarding	Not applicable

### Severals East (SDNPA)

## M/CH/8D



Site description	
District/Parish	Chichester/ Woolbeding with Redford
Area (ha)	20
Mineral type	Soft sand
Potential yield	Unknown
Current use	Commercial forestry
Owner	Cowdray Estate
Potential operator	Unknown

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.	
Plan	Planning history and current permissions	
Extension to existing site or new site	One of two new sites coming forward, lies adjacent to Severals West	
Planning policy	Within Chichester District Rural Policy Area where development is restricted.	
Planning history	Site was not allocated in the Minerals Local Plan (2003). Site was not considered to be acceptable in the Minerals DPD Issues and Options November (2005) due to landscape impact.	

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?	
Availability	The site is within single ownership and the owner wishes to develop the site for minerals extraction.
Deliverability	It is not known whether the site is deliverable as no operators have been identified.

	Key Criteria	
Landscape and visual designations	Within South Downs National Park	
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction, with the areas of ancient woodland and the water course to the west of the site of higher sensitivity (based on 2011 Study).	
	Site has <b>Moderate to Low</b> capacity overall for accommodating mineral extraction (2011 Study)	
	The majority of the site is within an area of medium tranquillity, with the very southern part being in an area of slightly lower tranquillity. The site is within an area defined as 'disturbed by noise' (based on 2011 Study).	
Nature conservation and geodiversity designations	An SNCI lies to the west and east of the site. Adjacent to Midhurst Common SNCI (east). Stedham Common SNCI 0.7km west. River Rother SNCI 0.3km north. Iping Common SSSI and LNR is located 1km to the west of the site.	
	Area of Ancient Woodland (replanted) partially located within the north of the site, buffer zone would protect from other land uses.	
	Site contains priority habitat of lowland heath and ancient woodland, contains rare species inventory records and is within a Biodiversity Opportunity Area. Impact of changes to water table on heathland needs to be considered.	
	This site lies approximately 6km from Singleton and Cocking Tunnel SAC. There is no scope for adverse impacts on this European site.	

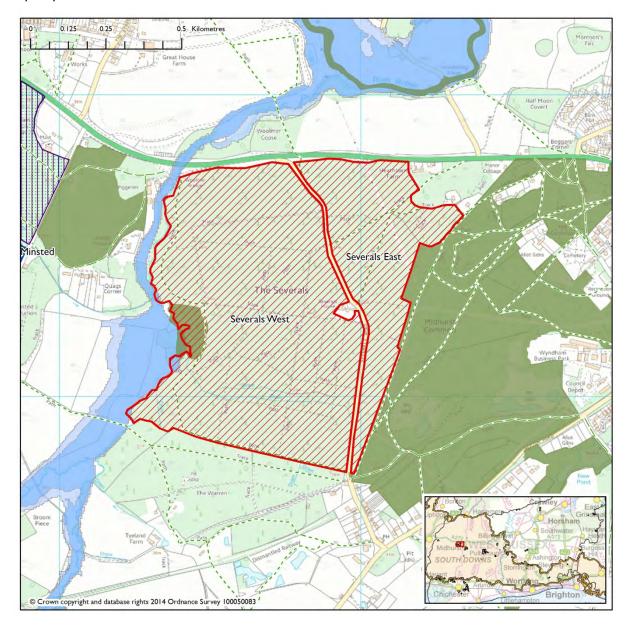
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. Concluded that this site will not have any likely significant effects on the Arun Valley SPA/Ramsar through reduced water flows or quality.
Historic environment designations	Heathbarn farmhouse (grade II listed) to the north east of the indicated site boundary recent woodland plantation. Grade II listed Toll House located 0.4km away to the north east.
	Four Conservation Areas within 2km of the site; Iping (2km northwest), Stedham and Woolbeding (0.7km and 0.8km north).
	Woolbeding Estate and Gardens north east of the site, managed by the National Trust.
	Early archaeological assessment strongly recommended - as a preliminary to any field evaluation a Lidar survey should be carried out (as this is a wooded site). Evaluation should be undertaken pre-determination and the results made available to consider at the application stage.
Water environment (including flooding)	<ul> <li>Flood zone 1</li> <li>Negligible risk to groundwater flooding (25% of site at higher risk)</li> <li>Low risk of surface water flooding, (5% of site at higher risk)</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed.</li> <li>No working below groundwater table preferable</li> </ul>
	Risk Assessment of the water environment (Qualitative Hydrological &

Air quality	<ul> <li>Hydrogeological Risk Assessment) - recommend phase 1 prior to allocation</li> <li>Localised flooding experienced in 2013/14 at Woolbeding Estate and Gardens.</li> <li>Impact on water quality of River Rother needs to be considered</li> <li>Any risk of sediment entering the watercourses which lead into the River Rother would need to be fully assessed and mitigated</li> <li>Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.</li> <li>Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).</li> </ul>
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	Grade 4 no loss of BMV agricultural land.
Public rights of way	Public Footpaths 3617 and 3618 run through the northern section of the site. Footpath 921 follows the eastern boundary of the site. Both footpaths 3617 and 921 form part of the Serpent Trail.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Possible access from Severals Road/A272. Suitability of access road needs to be assessed. The impact of additional HGV traffic on Midhurst and the villages to the west of the site should be suitably considered.

	High level transport assessment (2011) concluded:
	Access is possible directly onto the A272. It is recommended that the sites (Severals West and Severals East) are sequentially developed.
Services and utilities	To be identified using evidence provided by utility/service providers
Amenity	Severals House and residential properties to the south of the site. Heathbarn Farm and 1 and 2 Severals Cottages lie immediately to the east of the site.
Cumulative impact	There is a history of mineral working in close proximity to the site.
Airport safeguarding	Not applicable

### Severals West (SDNPA)

## M/CH/8C



Site description	
District/Parish	Chichester/ Woolbeding with Redford
Area (ha)	55
Mineral type	Soft sand, Folkstone beds
Potential yield	Unknown
Current use	Commercial forestry
Owner	Cowdray Estate
Potential operator	Unknown

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.	
Plar	Planning history and current permissions	
Extension to existing site or new site	One of two new sites coming forward, lies adjacent to Severals East	
Planning policy	Within Chichester District Rural Policy Area where development is restricted.	
Planning history	Site was not allocated in the Minerals Local Plan (2003). Site was not considered to be acceptable in the Minerals DPD Issues and Options November (2005) due to landscape and conservation impact.	

	Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
	Can it be delivered?	
Availability	The site is within single ownership and the owner wishes to develop the site for minerals extraction.	
Deliverability	It is not known whether the site is deliverable as no operators have been identified.	

	Key Criteria
Landscape and visual designations	Within South Downs National Park
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction, with the sloping northern fringe and areas of ancient woodland of higher sensitivity (based on 2011 Study).
	The site has a <b>Moderate to Low</b> capacity overall for accommodating mineral extraction.
	The majority of the site is in an area of medium tranquillity, although there is an area in the south of the site with higher tranquillity. The site is within an area defined as 'disturbed by noise' (based on 2011 Study).
Nature conservation and geodiversity designations	Severals Bog SNCI (SNCI C105) is situated within the site along the western edge. Even with a buffer strip, the bog habitat could be vulnerable to local changes in hydrology as a result of mineral working.
	Quaggs Corner SNCI (SNCI C53) lies to the west of this site.
	The stream to the west, Severals Stream, is a tributary of the River Rother. Buffers may be required to the stream and SNCIs.
	Area of Ancient Woodland (replanted) located within the north/northwest of the site.
	Potential hydrological impacts. Any risk of sediment entering the watercourses which lead into the River Rother would need to be fully assessed and mitigated.
	This site lies approximately 6km from Singleton and Cocking Tunnel SAC. This site was 'screened in' for Appropriate Assessment as part of a previous Habitat

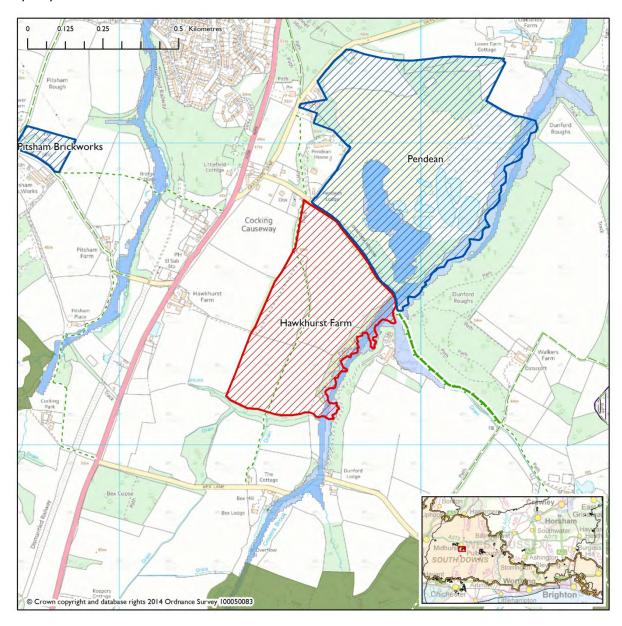
	Regulation Assessment carried out in 2011. The initial screening exercise identified that water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. concluded that this site will not have any likely significant effects on the Arun Valley SPA/Ramsar through reduced water flows or quality.
Historic environment designations	There are a number of listed buildings located within 1km of the site. The closest is 'Badgers', Quags Corner located approximately 0.3km to the west of the site. Woodlands Cottage and Heathbarn farm are also located 0.4 km from the site.  There are four Conservation Areas within 2km of the site, Midhurst, Iping, Stedham and Woolbeding.  Early archaeological assessment strongly recommended - as a preliminary to any field evaluation a Lidar survey should be carried out (as this is a wooded site). Evaluation should be undertaken pre-determination and the results made available to consider at
	the application stage.
Water environment (including flooding)	<ul> <li>Flood zone 1(Site borders Flood zone 2/3 at western edge of site)</li> <li>Negligible risk to groundwater flooding</li> <li>Low risk of surface water flooding</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed. Would prefer no working below groundwater table.</li> </ul>
	Risk Assessment of the water environment (Qualitative Hydrological & Hydrogeological Risk Assessment) - recommend phase 1 prior to allocation.
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.

	Traffic from this site may pass through the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286- Orchard St and A285- St Pancras).  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	Grade 4 therefore no loss of BMV agricultural land.
Public rights of way	Footpath 3619 loosely follows the western boundary of the site before turning eastwards along the southern boundary. A number of permissive paths run through the site, one of which forms part of the Serpent Trail.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application
Transport and access	Possible access from Severals Road/A272.
	The impact of additional HGV traffic on Midhurst and the villages to the west of the site should be suitably considered.
	High level transport assessment (2011) concluded:
	Access is possible directly onto the A272. It is recommended that the sites (Severals West and Severals East) are sequentially developed.
Services and utilities	To be identified using evidence provided by utility/service providers
Amenity	Severals House and residential properties to the south of the site.

Cumulative impact	There is a history of mineral working in close proximity to the site.
Airport safeguarding	Not applicable

## Hawkhurst Farm (SDNPA)

## M/CH/9A



Site description	
District/Parish	Chichester/West Lavington
Area (ha)	22
Mineral type	Soft sand (building & coarse sand)
Potential yield	1-3mt
Current use	Mainly agricultural with some commercial/amenity woodland
Owner	Cowdray Estate
Potential operator	Unknown

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Plan	nning history and current permissions
Extension to existing site or new site	Possible extension to Pendean (although Pendean now being restored) although site could be worked independently.
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	Site was not allocated in the Minerals Local Plan (2003). Site was not considered to be acceptable in the Minerals Development Plan Document Issues and Options (2005) due to landscape impact.

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?	
Availability	The site is owned by the Cowdray Estate and there are no known constraints to bringing the site forward.
Deliverability	It is not known whether the site is deliverable as no operators have been identified.

	Key Criteria	
Landscape and visual designations	Within the South Downs National Park	
	The site is considered to have a <b>High</b> sensitivity to sand extraction, with the northern part of the site and the southern and eastern fringes of highest sensitivity (based on 2011 Study).	
	Site has a <b>Low</b> capacity overall for accommodating mineral extraction.	
	Data indicates that the site is within an area of medium tranquillity and is within an area defined as 'disturbed by noise' (based on 2011 Study).	
Nature conservation and geodiversity designations	Site partly contains Ancient Woodland and other BAP habitats along the eastern edge of the site and falls within a Biodiversity Opportunity Area.	
	Ambersham Common SSSI approximately 1km to the east. Paddock Wood SNCI 1km to the west of the site. Hoe Copse SNCI located .5km to the south. Heyshott Green SNCI 1km to the southeast.	
	This site was 'screened out' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that there was not scope for adverse impacts on European Sites.	
Historic environment designations	Near a number of listed buildings including Dunford House (within 150m of eastern boundary of the site). Cobden Monument (Grade II Listed) to the northwest of the site (within 50m).	
	Within the site, Roman building material has been recovered, including possible sandstone roofing slabs. It is possible that these finds represent surface finds from a Roman building. Prehistoric flint tools and flint working debris of mesolithic date (850-4500 BC) have been reported. Within the site are also the former site of a brickworks, and The Cottage, where buildings are known to have existed from c. 1808-9. This is a	

large site on the Lower Greensand, a formation where earlier prehistoric occupation (eg. mesolithic flint scatters) is common, and on a large site such as this, the possibility that other remains of ancient occupation may be present, below ground and should be taken into account, eg. the sites of former barrows. Ancient woodland boundary banks may survive within woodland on the eastern edge of the site.

Acceptable provided that visual impact upon the nearby Listed Obelisk, and impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological impact assessment required (archaeological desk-based assessment, woodland archaeology survey, and non-invasive and invasive field evaluation), and Historic Building physical and visual impact assessment required. Surveys and reports to be carried out and submitted with any planning application.

# Water environment (including flooding)

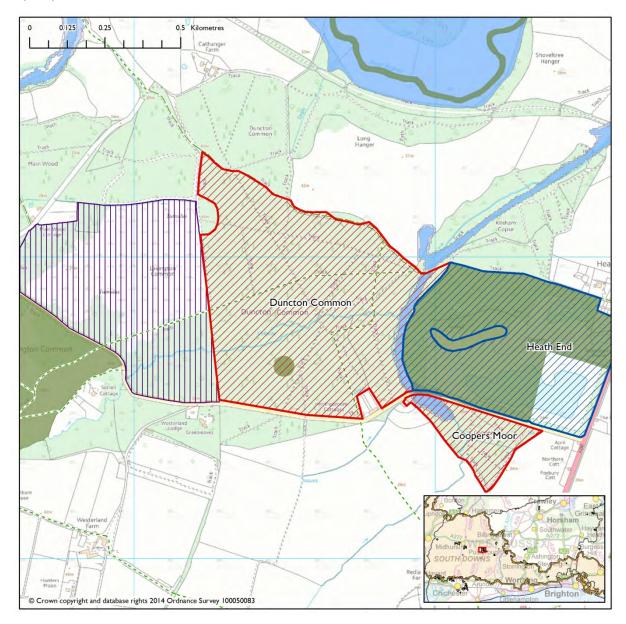
- Flood Zone 1, 10% of site in Fluvial Flood Zone 2 and 3b (Eastern edge of the site)
- Low risk of surface water flooding (5% of site at higher risk)
- Negligible risk of ground water flooding (25% at higher risk)
- Flood Vulnerability Classification: water-compatible
- Major Aquifer
- Adjacent to Pendean very deep quarry and complex issues in terms of drainage and below water table. If extended could potentially restrict minerals working to above groundwater. Would need to be linked with the restoration of Pendean – in particular consider any risk associated with further development in this area on any flood risk to third parties.
- Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed. Prefer no working below groundwater table.
- Risk Assessment of the water environment (Qualitative Hydrological & Hydrogeological Risk Assessment) recommend phase 1 prior to allocation.
- Costers Brook which flows along the eastern side of this site is of ecological

	significance as an important tributary of the River Rother and would require a wide buffer.
	<ul> <li>Any risk of sediment entering the watercourses which lead into the River Rother would need to be fully assessed and mitigated.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington and the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286-Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required. Local concern about air quality.
Soil quality	Grade 3a = 54%, Grade = 3b 34%, Grade 4 = 2%, Other = 9%. Land currently under Higher Level Stewardship Scheme. Therefore would result in loss of some BMV agricultural land.
Transport and access	Access onto the A286 would be preferable.
	The impact of additional HGV traffic on Midhurst and the villages to the south of the site should be suitably considered.
	High level transport assessment (2011) concluded:
	A suitable access onto the A286 may be possible and this would be the preferred option. The allocation of this site should though be subject to a satisfactory access arrangement being found.
	In the event that Hawkhurst Farm is allocated, a single vehicular access serving any further allocations at Pendean and Hawkhurst Farm should be explored.

Services and utilities	High Voltage Scottish and Southern cable runs across the site.  BT plant to the edge of the site.
Public rights of way	Public Footpath 948 runs to the north westand through the centre of the site. The Heyshott Byway runs along the northeastern boundary of the site which forms part of the Serpent Trail
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Amenity	Residential properties located in close proximity to the north western boundary of the site. A number of residential properties are also located approximately 200m from the southern boundary of the site. BUPA Pendean Nursing Home is located approximately 180mfrom the site.
Cumulative impact	Site located to the south of a former sand quarry at Pendean which is currently undergoing restoration with permission to import inert waste for slope stabilization.
Airport safeguarding	Not applicable

## **Duncton Common (SDNPA)**

# M/CH/10A



Site description	
District/Parish	Chichester/Duncton and Petworth
Area (ha)	45
Mineral type	Soft sand (concrete and building sand)
Potential yield	1.8 m.t.
Current use	Forestry/ heathland
	Original proposed scheme: Depending on water table, either a landscaped lake or reafforested.

Owner	Leconfield Estate
Potential operator	Dudman Group Ltd
Site specific information (operational and restoration considerations).	The proposed scheme is one of a mix of conservation dry (heath) and wetland habitats.
Plan	nning history and current permissions
Extension to existing site or new site	Possible extension to Heath End sand pit.
Planning policy	Within Chichester District Rural Policy Area where development is restricted. Located in a Zone of Visual Influence of Chichester Cathedral Spire.
Planning history	The site was not allocated in the Minerals Local Plan (2003). The site was not considered to be acceptable in the Minerals Development Plan Document (2005) due to landscape impact and nature conservation impacts. Revised site area proposed.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

Fit with the spatial strategy		
Opportunity to restore land beneficially?		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network		To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?		
Availability	The site is within single ownership and would therefore be regarded as available.	
Deliverability	Operators have expressed an interest in working the site as an extension to Heath End.	

Key Criteria	
Landscape and visual designations	Within South Downs National Park. Views from the Duncton Viewpoint.
	The site is considered to have a <b>Medium</b> sensitivity to extraction, with the higher area in the northeast, also adjacent to ancient woodland, of higher sensitivity (based on 2011 Study).
	The site has <b>Moderate to High</b> capacity overall for accommodating mineral extraction. (based on 2011 Study)
	The site has a rural quality, and data indicates that it is within an area of medium-high tranquillity and the majority of the site is within an area defined as 'undisturbed by noise'. (based on 2011 Study)

# Nature conservation and geodiversity designations

A small, but important area of wet heathland habitat within Duncton Common has been identified as an SNCI (C116). Evidence that site has supported breeding nightjars and woodlarks in the past. Habitat for number of species including rare Bog Asphodel.

Site contains priority habitat lowland heath, rare species inventory records and falls within a Biodiversity Opportunity Area. The site includes BAP habitat and woodland.

Heath End Sandpit SNCI (SNCI C74) and RIGS lies immediately to the east.

Lavington Common SSSI lies immediately to the west. Impact on sand lizards and uncommon spiders from noise and vibration needs to be considered.

Duncton Common SNCI is 250m to the south of the site and the River Rother SNCI 0.5km to the north.

This site lies approximately 2.3km from Duncton to Bignor Escarpment SSSI/SAC. However, there is no pathway connecting this site to the SAC.

An area classified as Ancient Woodland (Kilsham Copse) is located adjacent to the site to the east. A buffer should be considered.

The site also lies approximately 8km from the Mens SAC and 9km from Ebernoe Common SAC. Whilst the site contains large amounts of woodland it lies outside of the key foraging distance of Barbastelle and Bechstein bats from these European sites and therefore is not screened in for this pathway of impact.

A watercourse adjacent to the site drains into River Rother and into Arun Valley SPA/Ramsar. There is therefore a potential pathway for sediment to impact this European site. Spawning ground for sea trout.

### This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. It was concluded that adequate safeguards are in place to ensure that this site will not have an adverse effect on the Arun Valley SPA/Ramsar through reduced water quality. The site lies adjacent to several Listed Buildings with a high concentration to the Historic environment southeast (between approximately 0.5km and 1.5km). The closest is Cathanger designations Farmhouse which is located approximately 300m to the north. The site adjoins one Scheduled Ancient Monument and lies near another (a single barrow and a linear barrow grouping). A buffer of a minimum of 20 metres, excluded from mineral working and to include tree planting as screening, is recommended to protect the fabric and settings of the single barrow SAM on the north-west side of the site. The longstanding location of the other SAM upon an unworked ridge within the existing Duncton Common sand pit, still in operation, together with the good tree screen between the pit to the west and this site, should be taken into account as a mitigating factor when considering the potential visual impact of mineral working upon the linear barrow cemetery this SAM. Archaeological finds are recorded from just within this site, and medieval/ early post-medieval earthworks are known at the eastern edge of Lavington Common, and may extend into this site. Potential objection - Objection to application SDNP/111/14/CND - extension of winning and working of minerals at neighbouring Heath End Sandpit - has been recommended on archaeological grounds

Acceptable only provided that visual impact upon nearby Scheduled Ancient Monuments,

(archaeological desk-based, Walkover Survey and wherever feasible non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application. A Lidar survey as a preliminary to any field evaluation is strongly

and impacts upon visible and buried archaeological remains can satisfactorily be mitigated. Archaeological and geoarchaeological impact assessment required

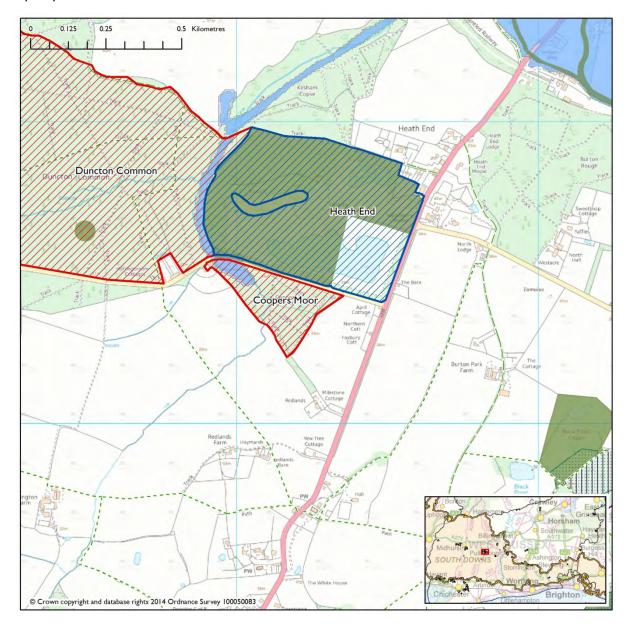
	recommended (as this is a wooded site).
Water environment (including	Flood Zone 1 (10% f site in Fluvial Flood Zone 2/3 (Eastern Edge of the site)
flooding)	<ul> <li>Low risk of surface water flooding (10% of site at higher risk)</li> </ul>
	<ul> <li>Negligible risk of ground water flooding (20% of site in higher risk area)</li> </ul>
	Minor Aquifer (small area of site within Major Aquifer)
	Flood Vulnerability Classification: water-compatible
	<ul> <li>Below groundwater table working – more complex operation and would need to consider impacts on drainage/flood risk.</li> </ul>
	<ul> <li>Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed. Prefer no working below groundwater table.</li> </ul>
	<ul> <li>Risk Assessment of the water environment (Qualitative Hydrological &amp; Hydrogeological Risk Assessment) - recommend phase 1 prior to allocation.</li> </ul>
	<ul> <li>The stream which is an important tributary of the River Rother, is known to be important for Sea Trout. Stream contains spawning ground for Sea Trout. Buffer zones need to be considered.</li> </ul>
	<ul> <li>Any risk of sediment entering the watercourses which lead into the River Rother would need to be fully assessed and mitigated. Also potential hydrological impacts on nearby heathland habitats.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington and the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286-Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air

	Quality Assessment would also be required. Local concern about air quality.
Soil quality	Grade 4 therefore no loss of BMV agricultural land.
Public rights of way	Public Bridleway 671 which runs along the northern boundary. Public Footpath 672/2 - the Serpent Trail bisects the site from east to west. Public Footpath 3527 also crosses the site from north to south. There is a parking and picnic areas close to the western boundary. A number of non-statutory forestry paths and tracks cross the site. Open access land at Lavington Common lies immediately to the west of the site.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Potential for combined access with the existing Heath End site, direct onto the A285. Impact of traffic on narrow roads through villages and Coultershaw bridge.
	High level transport assessment (2011) concluded:
	On the basis that there would be no intensification of use of the existing site or the access onto the public highway, there would seem no reason to resist this possible allocation. As appropriate it may be necessary to implement a cap on daily vehicle movements.
Services and utilities	Southern Water utlities along southern boundary
	BT boundary along edge of site.

Amenity	Four residential buildings to the south of the site and another across the road. Heath End to the east. Buffer zones need to be considered.
Cumulative impact	The site would be an extension to an existing site which would lead to further mineral working in the area but if worked when existing site finished there would be no additional impacts, but a continuation of working in the area which has expericenced mineral working for over 50 years.
Airport safeguarding	Not applicable.

#### Coopers Moor (SDNPA)

# M/CH/10C



Site description	
District/Parish	Chichester/Duncton
Area (ha)	6
Mineral type	Soft sand
Potential yield	500,000 tonnes
Current use	Woodland - birch regeneration and chestnut coppice
Owner	Leconfield Estate
Potential operator	Dudman Group Ltd.

Site specific information (operational and restoration considerations).	Restoration options would be to either conservation wetland with a range of different habitats, or to infill using inert, restoration material and raise levels to enable agricultural/woodland afteruse.
Plan	nning history and current permissions
Extension to existing site or new site	The site is separated from the existing Heath End sandpit by Duncton Common Road.
Planning policy	Within Chichester District Rural Policy Area.
Planning history	Site was considered acceptable in the Minerals DPD Issues and Options November 2005 subject to retention of woodland edge; provision of additional screening; buffers to woodland; assessment of nature conservation impact; assessment of impact on water environment and mitigation of impact on public amenity.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

	Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Can it be delivered?		
Availability	Landowner has promoted the site for mineral extraction	
Deliverability	Landowner keen to deliver site as part of the Duncton Common scheme	

	Key Criteria
Landscape and visual designations	Within South Downs National Park.
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction, with the more mature broadleaf trees in the west, the water courses running through the site and visibility from the surrounding area being attributes and features of higher sensitivity (based on 2011 Study).
	Site has <b>Low to Moderate</b> overall capacity for accommodating mineral extraction as adequate screening of views from the ridge may not be achieved by retaining and enhancing trees and vegetation around the perimeter (based on 2011 Study).
	Data indicates that the site is within an area of medium tranquillity and the site is within an area defined as 'disturbed by noise' (based on 2011 Study).
Nature conservation and geodiversity designations	Site includes BAP habitat and woodland.
	Heath End Sandpit SNCI directly adjacent to the north of the site. River Rother SNCI 1km to the north. Duncton Common SNCI 0.4km to northwest. SAC/SSI (Duncton and Bignor Escarpment) located under 2km to the south of the site.
Historic environment designations	There are several Listed Buildings nearby, including Redlands Farmhouse and Milestone Cottage approximately 150m to the southeast. The site lies near several known archaeological sites, including a Scheduled Ancient Monument (linear barrow cemetery one of the most important surviving examples on the Greensand); there may be further buried archaeological remains within the site, and visible field boundary earthworks, predating the present (early 19th-century?) wood. The potential impact of mineral extraction upon the setting of the nearby SAM should be considered in the light of the long-standing location of the SAM upon an unworked ridge within the existing sand pit, still in operation.

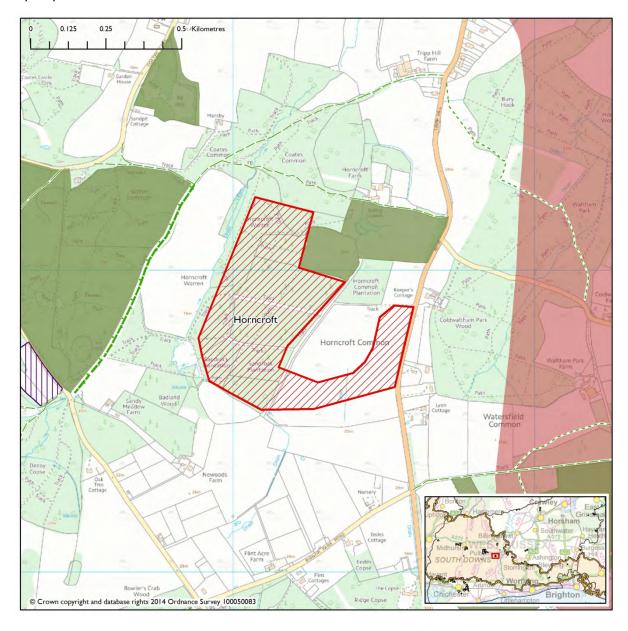
	Acceptable provided that visual impact upon Listed Buildings nearby, and impacts upon any visible and buried archaeological remains can satisfactorily be mitigated. Archaeological, geoarchaeological and historic buildings impact assessment required (archaeological desk-based, Walkover Survey and where feasible non-invasive and invasive field evaluation), surveys and reports to be carried out and submitted with any planning application. Lidar strongly recommended.
Water environment (including flooding)	<ul> <li>25% of site in Fluvial Flood Zone 2/3</li> <li>High risk of surface water flooding (25% of site at risk).</li> <li>Low risk susceptibility of ground water flooding (20% of site at higher risk).</li> <li>Major Aquifer</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Below groundwater table working – more complex operation and would need to consider impacts on drainage/flood risk.</li> <li>Groundwater levels likely to be high. Depth of working and de-watering operations will need to be explored and assessed. Prefer no working below groundwater table.</li> <li>Risk Assessment of the water environment (Qualitative Hydrological &amp; Hydrogeological Risk Assessment) - recommend phase 1 prior to allocation.</li> <li>Stream at western end of the site feeds into the River Rother, known for trout breeding and sensitive ecological qualities.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington and the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286-Orchard St and A285- St Pancras).  If traffic would have a negative impact on an Air Quality Management Area, then an Air

	Quality Assessment would also be required
Soil quality	Grade 4 therefore no loss of BMV agricultural land.
Public rights of way	No PROW cross/enter the site. A network of footpaths and bridleways are located close to the site (to the north, south, east and west) including the Serpent Trail. The Duncton Viewpoint is located approximately 2.5km to the south of the site and offers views of the landscape to the north, including towards this site.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Site likely to be an extension to Heath End site therefore operator indicates that access would be via existing Heath End site access direct onto the A285. Heath End and Coopers Moor separated by Duncton Common Road.
	High level transport assessment (2011) concluded:
	On the basis that there would be no intensification of use of the existing site or the access onto the public highway, there would seem no reason to resist this possible allocation. As appropriate it may be necessary to implement a cap on daily vehicle movements.
Services and utilities	Scottish and Southern high voltage cables run along the boundary of the site.
	Overhead BT plant along northern part of the site.
	A Southern Water supply boundary lies to the north of the site. Water infrastructure crosses the site and is also in close proximity to the site. Diversion may be possible at the developer's expense subject to a feasible alternative route being available.
Amenity	Residential properties to the east (110m) and southeast(150m) of the site.

Cumulative impact	Site is located in an area with a history of mineral extraction. Heath End sand pit is located to the north and Duncton chalk quarry to the south. Concern that extension would delay restoration of Heath End sandpit and about continuation of working in the area.
Airport safeguarding	Not applicable

## Horncroft (SDNPA)

# M/CH/11



Site description	
District/Parish	Chichester/Bury (500m from Fittleworth Parish boundary)
Area (ha)	24
Mineral type	Silica Sand (over 90% based on exploratory borehole drilling)
Potential yield	2-4 mt
Current use	Commercial forestry
Owner	The Barlavington Estate

Potential operator	Unknown
Site specific information (operational and restoration considerations).	Restoration: Would seek nature conservation/enhancement and forestry restoration, with restoration to agricultural land on the access route.
Plar	nning history and current permissions
Extension to existing site or new site	New site
Planning policy	Within Chichester District Rural Policy Area where development is restricted.
Planning history	Site considered for the Minerals Local Plan (2003) but was not allocated. A smaller area was also considered in the Minerals Development Plan Document Issues and Options (2005) but not considered acceptable due to landscape impact.  Planning application for sand extraction withdrawn in
	The site has been promoted for inclusion in the Plan
	through the 2014 site nomination process.

	Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Can it be delivered?		
Availability	The site is within single ownership (Barlavington Estate) and is therefore considered available.	

Deliverability	It is not known whether the site is deliverable as potential operator has not been confirmed
	potential operator has not been commined

	Key Criteria	
Landscape and visual designations	Within South Downs National Park	
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction, the broad leaf woodland, mature perimeter trees features and the landform of the ridge to the east being of higher sensitivity (based on 2011 Study).	
	The site has <b>low to moderate</b> capacity overall for accommodating mineral extraction (based on 2011 Study). <b>N.B. area of site has changed since 2011 Study therefore sensitivity and capacity score will be updated.</b>	
	Date indicates that the site is within an area of medium tranquillity, although there is an area of higher tranquillity in the northeast of the site. The site is within an area defined as 'undisturbed by noise'.(based on 2011 Study)	
Nature conservation geodiversity designations	Near Rare Species Inventory. Site includes BAP habitat and woodland. Sussex Biodiversity Records Centre states that there are over 59 rare and endangered species of flora and fauna within 1km radius from the site.	
	Coates Sand Pit SNCI is located approximately 290m northwest of the site. There are a number of other SNCIs located within 2km of the site. There are three SSSIs located to the west/soutwest of the site (all known as Coates Castle), the closest is approximately 0.4km to the southwest of the site.	
	Lord's Piece, Sutton Common Local Wildlife Site is located approximately 220m west of the site.	
	There are a number of Ancient Woodland areas in close proximity to the site, the closest is to the east (less then 100m from the southeast corner).	

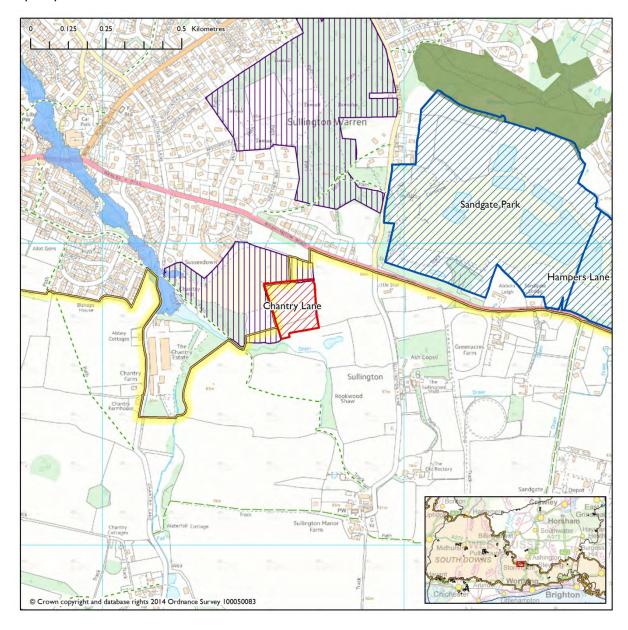
	This site lies approximately 7km from Arun Valley SPA/Ramsar via water courses (2.5km directly) and 3km from Duncton to Bignor Escarpment SAC.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. It was concluded that adequate safeguards are in place to ensure that this site will not have an adverse effect on the Arun Valley SPA/Ramsar through reduced water quality.
Historic environment designations	The site is within 370 metres of Scheduled Ancient Monuments (barrows) but site is well screened from these by existing tree cover. Provisional findings of recent (2008) archaeological desk-based assessment and walkover survey (whole site) and non-invasive and invasive field evaluation (open western half of site and limited work where feasible in wooded eastern half and field to east) has revealed only a few surviving ancient archaeological features, principally Roman remains within the proposed access road area. Final report on evaluation works awaited.
	Acceptable provided that, if an application is permitted, for targeted further archaeological investigation, recording, and mitigation, particularly in the wooded part of the site, where more evaluation is required. Lidar survey as a preliminary to any field evaluation is strongly recommended (as this is a wooded site)
Water environment (including	Flood Zone 1
flooding)	<ul> <li>Low risk susceptibility of surface water flooding (less than 5% of site in higher risk area). Negligible risk susceptibility of ground water flooding (10% of site at higher risk)</li> </ul>
	<ul> <li>Minor aquifer (small area to the northwest of site in major aquifer)</li> </ul>
	Flood Vulnerability Classification: water-compatible
	<ul> <li>Site located in close proximity to a Source Protection Zone (Zone 3) to the east which must be protected to the satisfaction of the Environment Agency.</li> </ul>

	<ul> <li>If used for sand, Gault clay needs to be removed – recommend consideration of any impacts.</li> </ul>
	<ul> <li>Surface water stream runs along the western and southern boundary. The stream which is an important tributary of the River Rother, is known to be important for Sea Trout.</li> </ul>
	<ul> <li>Any risk of sediment entering the watercourses which lead into the River Rother would need to be fully assessed and mitigated.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington and the AQMA's in Chichester (A27/A286 Stockbridge roundabout, A286-Orchard St and A285- St Pancras).
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required.
Soil quality	Grade 3 therefore unlikely to result in loss of BMV agricultural land unless confirmed as Grade 3a.
Public rights of way	Public Bridleway 762 is located approximately 100m north of the site. There are no public footpaths within the site. The Serpent Trail and a number of bridleways pass close to the north and west of the site. Sutton Common (Open Access Land) lies approximately 220m to the west.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.

Transport and access	Proposed new access off the B2138.
	High level transport assessment (2011) concluded:
	Allocation of this site should be subject to an acceptable access arrangement onto the B2138 being provided and the provision of a detailed routing agreement that considers and suitably mitigates as appropriate all HGV traffic arriving at the site.
Services and utilities	BT boundary across part of the site. Scottish and Southern high voltage cable runs across the site.
	Southern Water have confirmed that there is water infrastructure crossing the site.  Diversion of the infrastructure may be possible at the developers' expense, subject to a feasible alternative route being available.
Amenity	Horncroft Farm located approximately 200m northeast of the site. 6 residentail properties less than 100m from the east side of the site and a further 26 houses approximately 500m from the site. Residential properties also located to the south of the site and at Coates Common to the northwest which are likely to have views of the proposed site.
Cumulative impact	There is a dormant mineral working (Coates Pit) located to the north west of the site.
Airport safeguarding	None
Site specific information	Indication from agent for landowner that silica sand content is in excess of 90% based on exploratory borehole drilling.

## Chantry Lane Extension (SDNPA)

# M/HO/2



Site description	
District/Parish	Horsham/Storrington and Sullington
Area (ha)	2.5
Mineral type	Soft sand
Potential yield	1 million tonnes
Current use	Extension to existing workings. Adjoining land uses: Chantry Quarry and pasture.
Owner	Dudman Group Ltd
Potential operator	Dudman Group Ltd

Site specific information (operational and restoration considerations).	Operator would seek to stabalise sand faces by cutting back the overlying Gault Clay to a safe angle (approx 18 degrees), and the Iron Grit immediately below the clay would be exposed, maintaining its status as a Geological SSSI.  The floor of the quarry would be seeded and restored as heath and /or grassland.
Plar	nning history and current permissions
Extension to existing site or new site	Extension to existing site
Planning policy	The site is located in the area covered by policy DC1 (Countryside Protection and Enhancement) of the Horsham Core Strategy (2007) where development will not be permitted unless it is considered essential to its countryside location and enables the extraction of minerals or the disposal of waste.
Planning history	Existing sand quarry. The site was considered in the Minerals Local Plan (2003) but was not allocated. The site was also considered in the Minerals Development Plan Document issues and Options (2005) and was considered acceptable subject to detailed assessment of impacts on landscape and the water environment.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.  A draft redevelopment plan has been drawn up for
	Chantry Lane Industrial Estate and the Sand Quarry. This includes housing and employment or an educational campus. Consultation on the detailed proposals is planned with local and neighbouring parish councils, Horsham District Council, West Sussex County Council and The Highways Agency. The existing site is also being considered through the Neighbourhood Plan process.

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.

communities?	
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?	
Availability	The site was put forward as part of the site nomination process and it thought to be owned by the operator.
Deliverability	The operator is interested in delivering the site which would replace an existing area of permitted reserve.

Key Criteria	
Landscape and visual designations	Within South Downs National Park
	The site is considered to have a <b>Medium</b> sensitivity to extraction, with the mature perimeter trees features of higher sensitivity (based on 2011 Study).
	Landscape capacity is considered to be <b>Moderate</b> .
	Data indicates that the site is within an area of low-medium tranquillity and that it is within an area defined as 'disturbed by noise'.
Nature conservation and geodiversity designations	Adjacent to SSSI and RIGS. RIGS comprises open faces in the exisitng quarry.
	This site lies approximately 5km from Arun Valley SPA/Ramsar. A watercourse adjacent to the site drains into River Stor and into this European site.
	This site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that water quality was a pathway requiring consideration due to the potential impact of sediment within close proximity to European designated sites. It was concluded that this site will not have an adverse effect on the Arun Valley SPA/Ramsar through reduced water flows or quality.

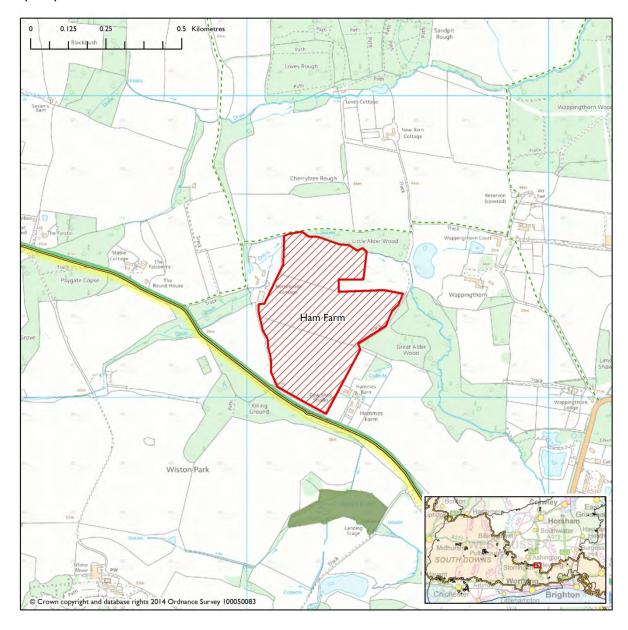
#### Within the site until 1947 at least was a range of buildings called "New Barn". A building is Historic environment shown here on the draft 1st Ed OS map of 1806-7, and upon Yeakell & Gardner's map of designations Southern Sussex of 1778-1783. The barn(s) may simply be a field barn(s), but given its origins over 200 years ago, there may have been earlier barns here or indeed the barns may be all that remained of an early farmstead. This is a large site partly on the Lower Greensand, a formation where earlier prehistoric occupation (eq. mesolithic flint scatters) is common, and on a large site such as this, the possibility that other remains of ancient occupation may be present, below ground and should be taken into account, eq. the sites of former barrows. Acceptable provided that impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological impact assessment required (archaeological desk-based assessment, and non-invasive and invasive field evaluation). Surveys and reports to be carried out and submitted with any planning application. Water environment • Flood Zone 1 (including flooding) Low risk susceptibility to surface water flooding Negligible risk susceptibility of groundwater flooding Partially within Major Aguifer Medium risk of flooding from artificial sources • Flood Vulnerability Classification: water-compatible Possible WFD impacts – watercourse adjacent to site tributary to River Stor and drains to Arun. Any risk of sediment entering the watercourses which lead into the River Stor & then into River Arun would need to be fully assessed and mitigated (European Site). • If used for sand, Gault clay needs to be removed – recommend consideration of any impacts.

Air quality	Site located near an Air Quality Management Area. Off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site likely pass through the AQMA at the A283 High Street/Manley's Hill, Storrington.
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	The site contains grade 1 best and most versatile agricultural land therefore likely to result in loss of BMV agricultural land.
Public rights of way	Public Footpath 2664 runs in a southeasterly direction along the boundary of the existing quarry. It emerges on to Chantry Lane beside the entrance to the existing quarry.
	Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.

Transport and access	New access from A283. Existing access not supported.
	High level transport assessment (2011) concluded:
	Whilst there is a permitted minerals extraction use, access via Chantry Lane is undesirable on highway safety grounds. The formation of a new access would offer a more acceptable arrangement but this does need to be demonstrated in terms of compliance with current design standards. The form of the access would need to be considered in conjunction with possible vehicle movements from other permitted uses on this site.
	Traffic routing to avoid Storrington is also considered important.
Services and utilities	BT line runs through site.
	Southern Water identified water infrastructure in close proximity to the site. Diversion of infrastructure may be possible at the developer's expense, subject to a feasible alternative route being available.
Amenity	Close proximity to the built up area of Storrington. A number of residential properties back on to the existing quarry along the northern boundary.
Cumulative impact	The site is an extension to a sand pit. Minerals are also worked to the north of the site.
Airport safeguarding	Safeguarding zone covers wind turbines only.

## Ham Farm

## M/HO/4A



Site description	
District/Parish	Horsham/Steyning
Area (ha)	16
Mineral type	Soft sand
Potential yield	850,000 tonnes
Current use	The existing site is arable farmland with isolated residential properties in the surrouding area. Adajcent to the north and east is woodland. Wiston Park is to the south of the site.

Owner	F de. Boer
Potential operator	Dudman Group Ltd
Site specific information (operational and restoration considerations).	The restoration proposal is to use imported inert, restoration material to raise levels and return the land back to an agricultural use.
Plar	nning history and current permissions
Extension to existing site or new site	New site
Planning policy	The site is located in the area covered by policy DC1 (Countryside Protection and Enhancement) of the Horsham Core Strategy (2007) where development will not be permitted unless it is considered essential to its countryside location and enables the extraction of minerals or the disposal of waste.
Planning history	Site was considered in the Minerals Development Plan Document Issues and Options (2005) and considered acceptable subject to the reduction of the site to exclude the northern area, provision of screening and buffers to woodland/hedgerows, an assessment of the impact on the water environment and mitigation of the impact on public amenity.  The site has been promoted for inclusion in the Plan through the 2014 site nomination process.

	Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.	

Can it be delivered?	
Availability	The site was put forward as part of the site nomination process. Operator has confirmed landowner support for the site.
Deliverability	The deposit has been tested. The operator is interested in delivering the site, subject to the land being available.

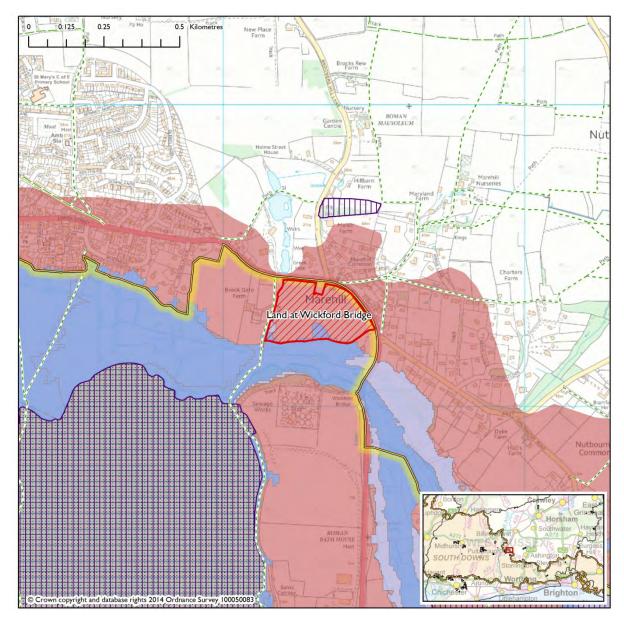
Key Criteria	
Landscape and visual designations	Adjacent to the South Downs National Park
	The site is considered to have a <b>Medium</b> sensitivity to sand extraction, with the northern fringes and western fringes of higher sensitivity (based on 2011 Study).
	Landscape capacity is considered <b>Moderate</b> .
	Data indicates that the site lies within an area defined as disturbed by noise and of medium tranquillity, with the northern parts of being of a higher tranquillity (based on 2011 Study)
Nature conservation and geodiversity designations	Adjacent to Ancient Semi Natural Woodland (Great Alder Wood)
goodiversity designations	No European site within 10km of this site.
	This site was 'screened out' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that there was not scope for adverse impacts on European Sites.
Historic environment designations	The site lies near a Listed Building (Horsebrook Cottage). The NW corner of the site lies close to one of the putative alignments of the Sussex Greensand Way Roman road. It is possible that archaeological remains associated with the road may exist within the site. Deposits of River Terrace sands/ gravels have been mapped on the site. These may contain Early Palaeolithic flint tools, and contain microfossils relevant to understanding of ancient environment. A handaxe of Palaeolithic date has been reported from just north of the site. Its find-spot lies within the area of mapped River Terrace sands/ gravels. On a large site such as this, the possibility that other remains of ancient occupation may be present should be taken into account.

	Acceptable provided that visual impact upon the nearby Listed Building, and impacts upon any buried archaeological remains can satisfactorily be mitigated. Archaeological impact assessment required (archaeological desk-based assessment and non-invasive and invasive field evaluation), and Historic Building visual impact assessment required. Surveys and reports to be carried out and submitted with any planning application.
Water environment (including flooding)	<ul> <li>Flood Zone 1</li> <li>Low risk susceptibility to surface water flooding (10% of site in higher risk area)</li> <li>50% of site at high risk susceptibility to ground water flooding</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>Several surface water streams runs along the boundaries of the site</li> <li>Mainly Gault Clay over Folkestone Beds to the west. If used for sand, the clay will need to be removed.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington.  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required
Soil quality	The site contains grades 1-3 best and most versatile agricultural land. Therefore likely to result in loss of BMV agricultural land.
Public rights of way	Public Footpath 2599 runs to the north and west of the site.  Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to

	cause deposition on the PROW.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Potential access from the A283.
	High level transport assessment (2011) concluded:
	In highway terms, subject to the design of an access to the appropriate standards, no safety concerns would be raised. The site's location on the A283 would provide some certainty that vehicles would access the site via the A24 or A27.
Services and utilities	Presence of EDF power line.
	Scottish and Southern Energy: Low voltage cables along the northern boundary of the site, high voltage cable runs across the site.
	BT line runs into the site.
	Southern Water: Water mains along southen boundary. Diversion of the infrastructure may be possible at the developer's expense, subject to a feasible alternative route being available.
Amenity	A number of residential properties are located in close proximity to the southeastern and northwestern boundaries of the site.
Cumulative impact	The site is not located near other exisiting sites.
Airport safeguarding	Within Shoreham aeronautical safeguarding zone

# Land at Wickford Bridge (SDNPA)

# M/HO/7



Site description	
District/Parish	Horsham/Pulborough
Area (ha)	5.5
Mineral type	Silica Sand
Potential yield	40,000m3
Current use	Agriculture
Owner	Mr R Phillips
Potential operator	Unknown

Site specific information (operational and restoration considerations).	Restoration: subsoil and top soil would be stored on site and replaced as part of restoration to agrictultual use.
Plan	ning history and current permissions
Extension to existing site or new site	New site
Planning policy	The site is located in the area covered by policy DC1 (Countryside Protection and Enhancement) of the Horsham Core Strategy (2007) where development will not be permitted unless it is considered essential to its countryside location and enables the extraction of minerals or the disposal of waste.
Planning history	The site was not considered in the Minerals Local Plan (2003) or the Minerals Development Plan Document Issues and Options (2005).

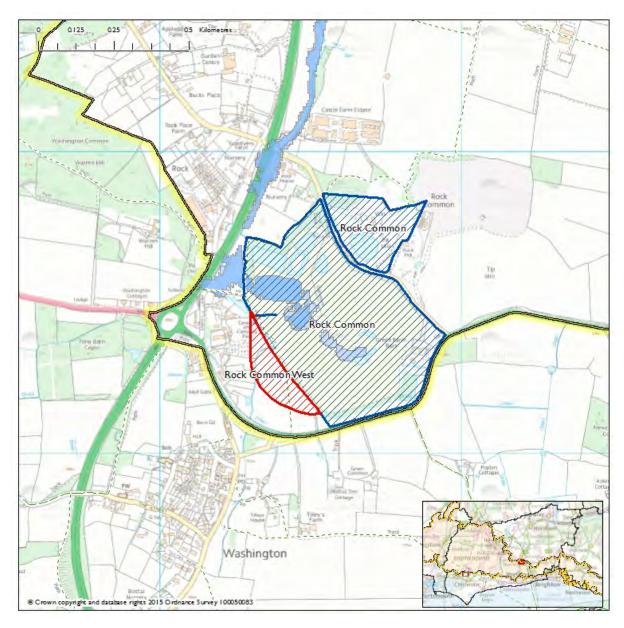
	Fit with the spatial strategy
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Can it be delivered?	
Availability	The site is within single ownership and is therefore considered available.
Deliverability	As above

Key Criteria	
Landscape and visual designations	The site is within the SDNP. Site was not included in the 2011 Landscape Sensitivity and Capacity Study therefore will need to be assessed.
Nature conservation and geodiversity designations	Pulborough Brooks SSSI is located 235 metres to the south, Ramsar and SAC. Marehill Quarry SSSI is located 205 metres to the north. Hurston Warren SSSI is located 830 metres to the south east.
Historic environment designations	Two listed buildings to north of site (north of A283). Capacity for archaeological evidence from the Mesolithic to later prehistoric and Roman period based on the pattern of known data in the vicinity. Measures for assessing the nature and extent of any recordable assets should be outlined by the applicant and the results of field evaluation included at the application stage if this site is taken forward.
Water environment	<ul> <li>10% of site (southern edge) within Flood Zones 2 and 3.</li> <li>Low risk of surface water flooding.</li> <li>High risk of groundwater flooding.</li> <li>Major Aquifer</li> <li>SPZ 2 and within SPZ3 for Hardham therefore water sources must be protected to the satisfaction of the Environment Agency.</li> <li>River Chilt directly to the south - possible WFD impacts.</li> <li>Groundwater levels likely to be high.</li> <li>Depth of working and de-watering operations will need to be explored and assessed.</li> <li>Prefer no working below groundwater table.</li> <li>Risk Assessment of the water environment (Qualitative Hydrological &amp; Hydrogeological Risk Assessment) - Environment Agency recommend phase 1 prior to allocation.</li> <li>Local evidence of flooding along A283 in early 2014.</li> </ul>

Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill,
	Storrington.
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required.
	Southern Water commented on importance of ensuring that proposed use is compatible with operation of Pulborough Wastewater treatment works. Development sensitive to odour should not be permitted unless adequate odour dispersion can be demonstrated.
Soil quality	Grade 3 therefore unlikely to result in loss of BMV agricultural land unless Grade 3a.
Transport and access	Access to site via A283. Two possible access points identified.
	The A283 in this location does not form part of the advisory lorry network, however both the A29 to the west and the A24 to the east do. Route to A29 would be via Pulborough (passing through the Conservation Area). Route to the A24 would be via Storrington (passing through the Conservation Area).
	No legal restriction to prevent access through either Storrington or Pulborough.
	Site was not considered in the high level transport assessment in 2011.
Services and utilities	To be identified using evidence provided by utility/service providers. Southern Water have identified that wastewater infrastructure crosses the site and water infrastructure is in close proximity to the site.
	Diversion of infrastructure may be possible at developers' expense, subject to feasible alternative route being available.

Public rights of way	Public Footpath 2430 runs along western boundary of site. Network of public footpaths in Mare Hill and Broomers Hill area.  Existing PROW recorded immediately adjacent to any site are to remain accommodated on their legal line and are not to be disturbed, obstructed or public access deterred. Where it is proposed that material is to be extracted or deposited adjacent to these paths, such works are not to be undertaken within 20 metres of the PROW in order that there will be no future subsidence or slippage to cause the PROW to fall away, or spread of material to cause deposition on the PROW.  Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Amenity	A number of residential areas in close proximity to north of site at Marehill. White Horse Inn opposite the site.
Cumulative impact	Wastewater treatment works located to the south.
Airport safeguarding	None

# Rock Common M/HO/3A



Site description	
District/Parish	Horsham/Washington
Area (ha)	Approx. 2.67
Mineral type	Soft Sand
Potential yield	1-1.5 million tonnes
Current use	Agriculture(0.1ha) /Woodland(0.8ha)
Owner	Wiston Estate

Potential operator	Dudman Group Ltd
Site specific	Restoration options are to either retain the quarry faces
information	and void and to restore to conservation land with a range
(operational and restoration	of different habitats, or to infil using inter material to raise levels with a view to some form of amenity afteruse.
considerations).	raise levels with a view to some form of amenity afteruse.
Planning history and current permissions	
Extension to	South western extension to existing quarry
existing site or	
new site	
Planning policy	Site located in the area covered by Policy DC1 (Area
	Outside Built Up Boundary) in the Horsham LDF.
Planning history	Site was not allocated in the Minerals Local Plan 2003.
	Site was considered acceptable in the Minerals DPD
	Issues and Options November 2005 subject to detailed
	landscape assessment, assessment on the water
	environment, mitigation on PRoW and public amenity.
	The site has been promoted for inclusion in the Plan
	through the 2014 site nomination process.

Fit with the spatial strategy	
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.

Can it be delivered?	
Availability	Operator indicated that landowner supportive of proposal
Deliverability	Unknown

	Key Criteria
Landscape and visual designations	The site is 80m north of the SDNP boundary. The site was not included in the 2011 Landscape Sensitivity and Capacity study, therefore will need to be assessed.
Nature conservation and geodiversity designations	Near Rare Species Inventory.
	The existing quarry is of ecological value. It is of particular note in supporting a rare breeding bird, and a sand martin colony.
	The existing quarry is a RIGS.
	Site not included in previous Appropriate Assessment.
Historic environment designations	The site lies near several Listed Buildings, the closest being Sandhill Farmhouse, 105 metres to the northwest of the site.
	This is a large site partly on the Lower Greensand, a formation where earlier prehistoric occupation (eg. mesolithic flint scatters) is common, and on a large site such as this, the possibility that remains of ancient occupation may be present, below ground and should be taken into account, eg. the sites of former barrows. Archaeological desk-based assessment, followed by geophysical survey carried out in 2008, on the southern part of the site, in connection with planning application DC/401/07, revealed only geological features and was therefore inconclusive as to the presence of any buried archaeological features, the fills of which may be less receptive to this form of survey.
	Acceptable subject to further archaeological assessment and mitigation measures, to involve invasive archaeological investigation of the site, followed by full archaeological investigation and recording of any surviving buried ancient archaeological features, unavoidably at risk of damage from mineral working; and subject to mitigation of the visual impact of mineral working upon nearby Listed Buildings.

Water environment	Flood Zone 1
Water environment	Low risk susceptiblity of surface water flooding.
	Negligible risk susceptibilty of ground water flooding.
	<ul> <li>Deep quarrying and therefore may be more complex. Current site de-watering around 30m below natural groundwater table. Additional de-watering operations may be needed that may have additional discharge to Honeybridge Stream.</li> </ul>
	Any extension would need to link with the restoration of the existing site.
	<ul> <li>The restoration of this extension also has implication with the adjoining landfill site and the condition imposed to maintain an unsaturated zone. This may have implication on the final restoration proposals for the main Rock Common Sandpit.</li> </ul>
	<ul> <li>Risk Assessment of the water environment (Qualitative Hydrological &amp; Hydrogeological Risk Assessment) – due to the complexities Environment Agency recommend phase 1 and 2 assessments prior to allocation.</li> </ul>
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.
	Traffic from this site may pass through the AQMA at the A283 High Street/Manley's Hill, Storrington.
	If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required.
Soil quality	Grade 4 = 81%, Other 19%. Therefore unlikely to result in loss of BMV agricultural land.
Transport and access	Use existing access via The Hollow on to the A283

	1
Services and utilities	EDF energy line present on site
	BT line in close proximity to site
	Southern Water have identified that there is water infrastructure in close proximity to the site. Diversion of the infrastructure may be possible at the developers' expense subject to feasible alternative route being available.
Public rights of way	Footpath 2701 crosses the site.
	All existing PROW are to be accommodated on their legal line and not to be disturbed, obstructed or public access deterred until and unless legal diversion or extinguishment (a public path order – PPO) is proposed and legally confirmed.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Amenity	Close proximity to residential properties and caravan and camping park located to the northwest of site.
Cumulative impact	Existing sand quarry and processing plant, although site would be worked as extension to existing so impact would be continuing.
Airport safeguarding	Falls within aeronautical safeguarding zone for wind turbines. With aeronautical safeguarding zone for birdstrike (Shoreham Airport).
Site specific information	Operator suggested restoration of extended quarry area would be incorporated into the restoration of the existing site and provision would be made to retain exposed quarry faces to promote geological and conservation interests.

#### 6. Other Minerals

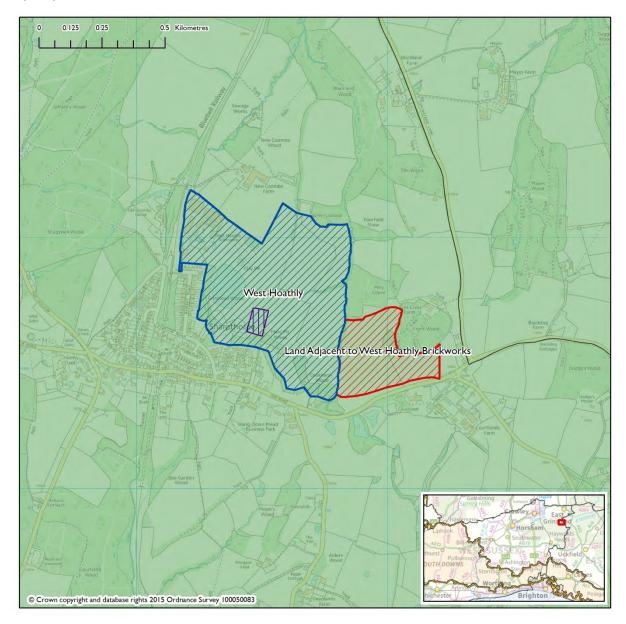
Clay

6.1 Clay extraction in West Sussex, for the purposes of brickmaking, has a long established history in the central and north eastern parts of the county. Wealden stock bricks continue to be produced and have a distinctive character. Clay is also used for the production of tiles and pipes, and clay can also be used in the production of cement manufacture, and lining canals and lakes. There are seven active clay sites in West Sussex, some of which are small operators, which account for 20-25% of the total in the Country.

#### Map Legend



# Land adjacent to West Hoathly Brickworks M/MS/1



Site description	
District/Parish	Mid Sussex/West Hoathly
Area (ha)	9
Mineral type	Wadhurst Clay
Potential yield	Unknown
Current use	Agriculture
Owner	Mr Grubb
Potential operator	Ibstock Brick Ltd/Brickbat Ltd.

Site specific information (operational and restoration considerations).	Information to be added following discussions with operators and landowners.
Plar	nning history and current permissions
Extension to existing site or new site	Extension to existing clay pit
Planning policy	The site is located in the Countryside Area of Development Constraint (Mid Sussex Local Plan 2000). This means that the proposals for development will be resisted subject to a number of different uses listed in the policy, including, in appropriate cases, proposals for the extraction of minerals of the disposal of waste.
	Land to the south west of the site has been identified for housing devleopment in the West Hoathly Neighbourhood Plan 2014-2031 Submission Document (September, 2014).
Planning history	Clay extraction and brickworks. The site was not considered in the Minerals Local Plan (2003) or the Minerals Development Plan Document Issues and Options (2005).

	Fit with the spatial strategy		
Opportunity to restore land beneficially?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
Sensitive natural or built environment and away from communities?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
Accessible by sustainable modes of transport and close to the existing highway network?	To be assessed by WSCC/SDNPA using evidence provided by stakeholders, technical studies and other material considerations.		
	Can it be delivered?		
Availability	The site was put forward as part of the site nomination process. It is unknown whether the landowner supports the development of the site yet.		
Deliverability	The operators (Ibstock) have indicated that the mineral resources would be required, in respect of their ongoing		

brick making operations, within the Plan period.

	Key Criteria			
Landscape and visual designations	The site is within the High Weald AONB.			
	The site is considered to have a <b>Medium to High</b> sensitivity to extraction, with the east of the site of higher sensitivity due to the proximity of the village of Sharpthorne, the Historic Park and Garden to the south and the higher visual sensitivity of the area (based on 2011 Study).			
	The site is considered to have a <b>Low-Moderate</b> capacity to accommodate mineral activities (based on 2011 Study).			
Nature conservation and geodiversity designations	The site is Adjacent to Ancient Woodland (Front Wood, Blackwood Wood and Cookhams shaw) and buffers of between 20m and 100m would be required.			
	Adjacent to ancient semi natural woodland – Font Wood.			
	The quarry is designated as a RIGS.			
	This site lies approximately 1.6km from Ashdown Forest SPA/SAC. It is assumed that site traffic will use the A22 which bisects this SPA/SAC. This site is therefore screened in for potential emissions and disturbance to the European site.			
	The site is 140 metres east of West Hoathly SSSI.			
	The site was 'screened in' for Appropriate Assessment as part of a previous Habitat Regulation Assessment carried out in 2011. The initial screening exercise identified that the site could cause potential emissions disturbance if traffic uses the A22 which bisects the Ashdown Forest SPA/SAC and that further safeguards would be required. With regard to noise disturbance of SPA birds, the Appropriate Assessment concluded that given that			

	the A22 is already heavily used by traffic, it is reasonable to conclude that any increased usage by minerals traffic will not result in significant additional noise compared to background levels and thus disturbance to birds.		
Historic environment designations	There are no designated heritage assets within the area hatched red adjacent to West Hoathly Brickworks but a large number of mine pits associated with historic iron ore extraction have been identified and recorded in the course of extraction in previous permissions – further similar features are expected to be found should the area marked in red be approved and mitigation measures for recording will be required. If this site is taken forward it is recommended that a Lidar survey should be undertaken to evaluate features in woodland. Evaluation should be undertaken pre-determination and the results made available to consider at the application stage.		
Water environment (including flooding)	<ul> <li>The site is located in Flood Zone 1</li> <li>The majority of the site is at a low risk of flooding from the land with 10% of the site at higher risk.</li> <li>Negligible risk susceptibility of groundwater flooding</li> <li>Flood Vulnerability Classification: water-compatible</li> <li>The site is not within a Groundwater Source Protection Zone</li> <li>EA maps indicate the site is within groundwater vulnerability zone: Minor Aquifer (intermediate)</li> </ul>		
Air quality	Site not located within an Air Quality Management Area but off site traffic movements will need to be considered in the Transport Assessment.  Traffic from this site may pass through the Crawley AQMA.  If traffic would have a negative impact on an Air Quality Management Area, then an Air Quality Assessment would also be required		
Soil quality	The site contains Grade 2 Best and Most Versatile land.		

Public rights of way	No PRoW near the site.
Public rights of way	NO PROW Hear the Site.
	Opportunities to enhance future public access will be pursued by the PROW Teams through any future planning application.
Transport and access	Access to the site for clay winning would be through the existing brickworks.
	Access to the site using road network is approximately 7km from the ALR (A22), and would use the same routing that is currently used to/from the brickworks.
Services and utilities	BT line present in close proximity to site identified
	EDF energy line present on site.
Amenity	Residential properties to the east, south east and west (Sharpthorne).
	Amenity issues arising from mineral developments, including noise, dust and light pollution may be capable of mitigation. The opportunity for, and the nature of, such mitigation measures will be considered in detail following the technical assessment stage of site selection.
Cumulative impact	Impact of the extension to an existing quarry should be considered.
Airport safeguarding	The site fall within the Gatwick Aerodrome Safeguarding Zone for restrictions for buildings and structures.
	This site sits just outside of the Bird Circle (Birdstrike Hazard Consultation Zone), but is under the Obstacle Limitation Surface (the Outer Horizontal Surfaces OHS) so there will be height restrictions for buildings and structures.

# Appendix 1 Glossary and Abbreviations

ALR	Advisory Lorry	
	Route	Advisory lorry routes are strategic and local roads recommended for use by lorries and heavy goods vehicles in West Sussex. Most are dual carriageways or modern single carriageways.  Their use is supported within the West Sussex Local Transport Plan. More information about the ALR and a map of the route is available online.
	Aggregates	Sand, gravel and crushed rock (known as primary aggregates), mineral waste such as colliery spoil, industry wastes and recycled materials (known as secondary aggregates), and such material as construction and demolition waste (recycled aggregates). Aggregates are used in the construction industry to produce concrete, mortar, asphalt, etc.
AONB	Area of Outstanding Natural Beauty	An area designated by the Countryside Agency under Section 87 and 88 of the National Parks and Access to the Countryside Act 1949. The primary objective is conservation of the natural beauty of the landscape. West Sussex has two Areas: Chichester Harbour and High Weald.
	Ancient Woodland	Areas that had continuous woodland cover since at least 1600 and have been cleared only for underwood or timber production.
	Biodiversity	Shorter term for 'biological diversity' which applies to all terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.
	Conservation Areas	An area, as defined in the Planning (Listed Building and Conservation Areas) Act 1990, designated as being of special architectural or historical interest and therefore protected from any alterations which would destroy its character.
HRA	Ecosystems Services Habitats	An ecosystems services approach provides a framework for looking at whole ecosystems in decision making, and for valuing the ecosystem services they provide, to ensure that society can maintain a healthy and resilient natural environment now and for future generations.  Statutory requirement for Planning Authorities to

Acrony	m/Term	Explanation
	Regulation Assessment	assess the potential effects of land-use plans on designated European Sites in Great Britain. The Habitats Regulations Assessment is intended to assess the potential effects of a development plan on one or more European Sites (collectively termed 'Natura 2000' sites). The Natura 2000 sites comprise Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). SPAs area classified under the European Council Directive on the conservation of wild birds (79/409/EEC; Birds Directive) for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).
	Landbank	The landbank is a stock of planning permissions for mineral extraction and it is used to secure and maintain an adequate supply of minerals. The length of the landbank is calculated by dividing the total reserve remaining on sites with planning permission by the annual requirement (based on the apportionment).
	Listed Building	A building officially listed as being of special architectural or historic interest as defined in the Planning (Listed Building and Conservation Areas) Act 1990.
MCA	Minerals Consultation Area	A mechanism that aims to ensure that in two-tier authority areas consultation takes place between county and district planning authorities when mineral interests could be compromised by non-mineral development.
MSA	Mineral Safeguarding Areas	Areas of known mineral resources that are of sufficient economic or conservation value to warrant protection for generations to come.
МРА	Mineral Planning Authority	A local authority with responsibility for processing mineral applications. West Sussex County Council and the South Downs National Park Authority are both Mineral Planning Authorities.
Mt		Million Tonnes
mtpa		Million Tonnes per Annum
	National Park	A National Park must be an extensive tract of countryside, that because of its natural beauty

Acronym	/Term	Explanation
		and the opportunities it affords for open air recreation, Natural England considers it especially desirable that legal measures are taken to safeguard it under the provisions of the National Parks and Access to the Countryside Act of 1949.
	Primary	Virgin materials such as sand and gravel which
	Aggregates Protected Species	are extracted from the ground.  Individual wildlife species which have statutory protection under a range of legislation provisions (e.g. the Wildlife and Countryside Act 1982, the Conservation (Natural Habitats, &c) Regulations 1994, Protection of Badgers Act 1992).
	Recycled Aggregates	Aggregate which has been extracted from the ground (as primary aggregate), but which has subsequently been used and recovered for reuse. It comprises material derived from construction and demolition waste
Ramsar site		Sites designated under the European Ramsar Convention to protect wetlands that are of international importance, particularly wildfowl habitats.
RIGS	Regionally Important Geological and Geomorphological Sites	A non-statutory regionally important geological or geomorphological site, designated by locally developed criteria.
	Restoration	The process of returning a site to its former use, or restoring it to a condition that will support an agreed after-use, such as agriculture and forestry.
SAM	Scheduled Ancient Monuments	A nationally important archaeological site included in the Schedule of Ancient Monuments maintained by the Secretary of State under the Ancient Monuments and Archaeological Areas Act 1979.
	Secondary Aggregates	Secondary aggregates can be a lower grade virgin material such as chalk, or previously used aggregate or used materials which were not previously aggregates, for example shredded tyres.
SSSI	Sites of Special Scientific Interest	A site statutorily notified under the Wildlife and Countryside Act 1981 as being of special nature

Acronym	/Term	Explanation
		conservation interest. SSSI include wildlife habitats, geological features and landforms.
SPA	Special Protection Areas	A site of importance for rare and vulnerable birds under the EU Directive on the Conservation of Wild Birds.
SAC	Special Areas of Conservation	A site of international importance designated under the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora.
SFRA	Strategic Flood Risk Assessment	A study carried out by local planning authorities in consultation with the Environment Agency. The SFRA provides information on the areas that may flood and the impacts of climate change.
SA	Sustainability Appraisal	A single appraisal tool which provides for the systematic identification and evaluation of the economic, social and environmental impacts of a proposal.
	Sharp sand and gravel	Course sand and gravel suitable for use in making concrete.
	Silica Sand	Also known as industrial sand, contains a high proportion of silica in the form of quartz. It is produced from unconsolidated sands and crushed sandstones and is used for applications other than as construction aggregate.
	Soft Sand	Fine sand suitable for use in such products as mortar, asphalt and plaster.
NNR	National Nature Reserves	A site of national nature conservation importance managed by English Nature and established under the Wildlife and Countryside Act 1981.

### Appendix 2 Sites not considered suitable for further consideration through the Minerals Local Plan

The sites set out below are not considered suitable for further consideration, however this classification should not be considered permanent. Instead, informal engagement responses to this MSS v1 will be used to inform the decision on whether or not sites are taken forward to the next stage.

Site	Code	Mineral	Reason(s) for elimination
Buncton Crossways	M/HO/4B	Sand	Unacceptable impact on landscape character. The proposal would lead to destruction of distinctive landform which forms part of foothills and contributes to landscape character. There is also uncertainty about the deliverability of the site.
Burton East	M/CH/1E	Sand	Unacceptable impact on landscape character and uncertainty over deliverability of the site.
Burton West	M/CH/10D	Sand	Unacceptable impact on landscape character. Effect on landform could have significant visual impact and effect on landscape character. There is also uncertainty about deliverability of the site.
Copse Farm	M/CH/4A	Sharp sand and gravel	Deliverability issues. The landowner has indicated that they do not wish the site to be considered for allocation within the Minerals Local Plan.
Downs Road East	M/CH/2G	Gravel	Unacceptable impact on landscape character. Concern over loss of character to landscape where views are seen in the context of the South Downs National Park. There is also uncertainty about deliverability of the site.
Downs Road West	M/CH/2F	Gravel	Unacceptable impact on landscape character. Concern over the loss of character to landscape where views are seen in the context of the South Downs National Park. There is also uncertainty about

Site	Code	Mineral	Reason(s) for elimination
			deliverability of the site.
Dunford Rough	M/CH/9B	Sand	Deliverability issues. Restrictive covenants and access difficulties.
Ell Bridge	M/CH/1E	Gravel	Unacceptable impact on landscape character. The proposal would lead to the destruction of a natural landform valley feature. There is also uncertainty about deliverability of the site. Access to the site is required from Racton Park which is also considered unacceptable.
Funtington East	M/CH/1H	Gravel	Deliverability issues. The landowner has indicated that the site contains lug sand for which there is no longer a market.
Huntersrace Lane North	M/CH/2D	Gravel	Tarmac has sold the land at this site, but retained the mineral rights. The company has indicated that they do not intend to exercise their right to work them within such a timescale that would require their consideration as part of this Plan. The site is deemed undeliverable.
Huntersrace Lane South	M/CH/2J	Gravel	Unacceptable impact on landscape character. Loss of a significant number of landscape features, which contribute to landscape character. There is also uncertainty about deliverability of the site.
Land at Redvins	M/CH/6	Gravel	The landowner no longer wishes to see this site allocated in the Minerals Local Plan, the site is deemed undeliverable.
Lavant West	M/CH/2H	Gravel	Potential adverse impact on residential amenity and adjacent school. There is also uncertainty about deliverability of the site.
Lower Chancton Farm	M/HO/3C	Sand	Improvements to the A283 are needed before access can be achieved. There is also uncertainty about deliverability of the site.
Shopwyke North	M/CH/4B	Gravel	There is uncertainty about deliverability of the site.
Madams Green Farm East	M/CH/4H	Gravel	Unacceptable impact on landscape character. The site would affect the setting of Oving, visual impact due to wide open views. The

Site	Code	Mineral	Reason(s) for elimination
			landowner has indicated that they will not be bringing the site
			forward.
			Unacceptable impact on landscape character. The site would have
Minsted East	M/CH/8B	Sand	a detrimental visual impact along the extent of the valley floor.
			There is also uncertainty about deliverability of the site.
			Unacceptable impact on landscape character. The site would affect
Oving West	M/CH/4G	Gravel	the setting of Oving, visual impact due to wide open views. The
Oving West	M/CH/40	Gravei	landowner has indicated that they will not be bringing the site
			forward.
Park Lane	M/CH/2I	Gravel	Potential adverse impact on residential amenity and adjacent
Park Larie	141/ C1 1/ 21	Graver	school. There is also uncertainty about deliverability of the site.
Philpots Quarry	M/MC/2	Ctono	The northern extension to this site has now been permitted by the
Northern Extension	M/MS/2	Stone	County Council. Therefore, there is no new site to be allocated.
Pulborough	M/HO/1A	Gravel	The site would have a detrimental impact on landscape character
Pulborougii			due to wide views from the ridgeline at Pulborough.
			Unacceptable impact on landscape character. Concern over loss of
Racton Park	M/CH/1F	Gravel	character to landscape to the west of site where views are seen in
Racton Park			the context of the South Downs National Park. There is also
			uncertainty about deliverability of the site.
			Unacceptable impact on landscape character. The site is visible
Ridlington Farm			from higher ground of the National Park and there would be an
	M/CH/10B	Sand	adverse visual impact on wider views in context of foothills of
			Sussex Downs. There is also uncertainty about the deliverability of
			the site.
Rock Common South	M/HO/3B	Sand	Unacceptable impact on landscape character. The proposal would
			be seen in context of the South Downs National Park and long

Site	Code	Mineral	Reason(s) for elimination
			views to the site will increase visual impact. The proposal would
			also have an adverse impact on public amenity as a result of
			cumulative impact of workings in the area. There is also
			uncertainty about deliverability of the site.
Shoreham Cement			The landowner of the majority of the proposed site has confirmed
Works- southern	M/HO/5	Chalk	that they would not be supportive of mineral extraction in this
extension			location. The site is deemed undeliverable.
Stoney Meadow	M/CH/5	Gravel	Potential impact on surrounding uses and uncertainty about
Storiey Fleddow	11/011/3	Graver	deliverability of the site.
			Tarmac has sold the land at this site, but retained the mineral
	M/CH/2B		rights. The company has indicated that they do not intend to
West Stoke Road East		Gravel	exercise their right to work them within such a timescale that
			would require their consideration as part of this Plan. The site is
			deemed undeliverable.
			Tarmac has sold the land at this site, but retained the mineral
West Stoke Road			rights. The company has indicated that they do not intend to
West	M/CH/2C	Gravel	exercise their right to work them within such a timescale that
			would require their consideration as part of this Plan. The site is
			deemed undeliverable.
Wiggonholt		Sand	Unacceptable impact on landscape character. The proposal would
	M/HO/1B		have an adverse effect on landscape character and loss of
			landscape features. There is also uncertainty about deliverability of
			the site.
Withies Farm East	M/CH/4I	Gravel	The landowner no longer wishes to see this site allocated in the
			Minerals Local Plan, the site is deemed undeliverable.