

Site: MD50, Land at Clipstone				
SA Objective and Criteria	Summary of impact (including nature and spatial extent of the impact, probability, duration, frequency and reversibility).	Significance of the effect		
		Short	Medium	Long
<b>Biodiversity and earth science</b>				
<p>To what extent are land based resource blocks constrained by designated areas e.g. National Nature Reserves, SSSIs, and SACs etc.?</p> <p>To what extent does the proposed site threaten the qualities of designated areas?</p>	<p>The site is located within 0.7km of nine acres pit SSSI, although Natural England considers that it is unlikely that this potential minerals extraction site will have any adverse impacts on a SSSI. However given the large land take it is likely that there will be impacts on BAP and/or legally protected species, for example water voles, badgers, otters, bats, nesting birds and possibly great crested newts. Therefore a progressive restoration scheme would be important in minimising impacts to BAP and/or protected species and longer term restoration would contribute towards local and national BAP targets along with Green Infrastructure initiatives.</p>	O	O	G
<b>Archaeology and cultural heritage</b>				
<p>To what extent are land based resource blocks constrained by designated sites or Conservation Areas?</p> <p>To what extent does the proposed site threaten the qualities of designated areas?</p>	<p>The site is located within 500m of a Scheduled Ancient Monument at Church Farm (moated site and earthworks). Also there is a Grade II Registered Historic Park and Garden (Battlesden Park) 500m to the North of the site and a cluster of Grade II listed buildings in the nearby settlement of Hockliffe. The setting and integrity of these features may be affected by the proposed minerals extraction site, further assessments should be carried out to judge these impacts should the site be put forward for extraction.</p> <p>In addition the site is located within 1 km of a section of the A5 which forms part of the Roman Watling Street; therefore it is possible that the site and surrounding area may contain archaeological remains relating to the roman road. The County Historic Environmental Record (HER) and English Heritage's National Monuments Record (NMR) should be consulted to ascertain archaeological potential.</p>	O	O	O
<b>Landscape</b>				
<p>To what extent are land based resource blocks constrained by designated areas e.g. National Parks etc.?).</p> <p>To what extent does the proposed site threaten the qualities of</p>	<p>The site is within the Green belt and falls within the Toddington – Hockcliffe Clay Hills landscape character area which has been considered to have a moderate to high sensitivity to change. A key objective for this area is to conserve Clipstone Brook Valley through conservation and extension of pasture. Mineral extraction</p>	O	O	O

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designated areas?	would conflict with this objective.  In addition, a change in the landform may cause a visual intrusion and detract from the landscape character of the Grade II Registered Historic Park and Garden (Battlesden Park) located 500m to the North of the site. The effect would last as long as the site is worked and would be reversible if the site were restored to a landscape type which suits for the character of the area. The site is also crossed by rights of way (Footpath 14 hockcliffe) which would require diversion and reinstatement after restoration.			
Land take				
To what extent do land based resource blocks conflict with areas of best and most versatile agricultural land?	The site does not conflict with areas of best and most versatile agricultural land.	G	G	G
To what extent do land based resource blocks help achieve the objectives of the wider development framework (i.e. contribution to amenity, landscape, biodiversity objectives through restoration).	The site has the opportunity to contribute to the longer term local and national BAP targets through restoration of the site to a wetland environment. Also the site could help to provide much needed green infrastructure in this Growth Area to the East of Leighton Buzzard.	O	O	G
Human health and amenity				
What level of nuisance or effect on quality of life or human health (for both existing or planned residential areas) is likely to occur as a result of the proposed site?	The site may cause potential health impacts from noise, dust and air pollution from sand extraction especially in the nearby (within 1km) community of Hockcliffe. However in the long term the restored site could contribute to green infrastructure and public amenity spaces; this would have a positive effect.	R	R	G
Transportation				
Which mode of transport (rail, road or water) is most likely to be used in the transportation of the aggregate?  Is the site near to the strategic highway network?	From a transport perspective this site is well located to the strategic road network (A5). Although any intensification of extraction will impact on the local road network (Eastern Way and Mile Tree Road) and the A5 trunk road.	O	O	G
Extent of remaining landbank				

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To what extent does the proposed site minimise impacts on existing landbanks? i.e. contribute to landbanks through reserves. <i>For silica sand, supply at sites needs to be looked at individually. A key question will be how the benefit of mineral supply weighs against local impacts of working.</i>	The site will contribute 2.5 million tonnes of silica sand. This site has been put forward as a possible replacement for sands that are currently worked at both Pratts and Nine Acres quarries, subject to the findings of ongoing tests. If those tests prove positive, then depending on the relative proportions of coarse and fine sands within the deposit, this site could be considered as an alternative to MD13 and/or MD14. If the detailed tests prove negative (i.e. if they prove that the Clipstone sands have more in common with those at Chamberlain's Barn, which already has adequate remaining reserves), then there will be no immediate justification for the inclusion of this site, other than for safeguarding purposes. Even if tests proved positive, the site could have significant effects on the human health and amenity of the local population, particularly in terms of noise, dust and air pollution. The minerals planning process need to weigh up the implications of this with the likely need for the material.	○	○	○
Conservation and protection of water resources				
To what extent are water resources used or impacted upon for the extraction of the aggregate?	The site falls within the Nitrate vulnerable zone and is located on a minor aquifer. Also approximately 350m to the North East of the site is a class 1 ground source protection zone (SPZ) surrounding an important water supply abstraction point. Therefore any extraction operations in this area must be undertaken with extreme care. The Environment Agency has indicated that dewatering sand extraction methodologies would not be acceptable, however 'wet working' has been previously used in nearby quarries and may be acceptable to this site.  In addition the site is within the River Ouzel Internal Drainage Board Area, and the Clipstone Brook runs through the site. Parts of the site have been categorised as Flood zones 2 (Low to Medium risk) and 3 (High risk) under the Environment Agency's Flood Map, although site restoration to wetland habitats could provide alleviation from flood risk.	○	○	○
Waste management				
How much waste is likely to be produced per tonne of aggregate? <i>(this may be an issue related to silica sand only)</i>	The amount of waste which would be produced as part of this operation is uncertain. Further details should be requested from the site operator regarding estimates of waste per tonne.	○	○	○

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Other planning considerations				
To what extent are resource blocks affected by other constraints e.g. CAA Guidance CAP680?	The site is not affected by an airfield safeguarding zone. The site is within the Growth Area to the East of Leighton Buzzard and in the long term could provide much needed green infrastructure. No other constraints have been identified.	O	O	G