1. Introduction

The purpose of this topic paper is to provide commentary on the considerations that have been taken into account during the development of clay policy throughout the review of the adopted Minerals Local Plan (MLP).

This topic paper has been updated since the Initial Consultation and prepared in advance of the Draft Plan consultation. It comprises an introduction to clay, an outline of Hertfordshire’s existing brick clay reserves, the requirements for the provision of clay, the issues and options when planning for clay, and the approach to planning for brick clay within the Draft MLP.

2. What is Clay?

Clay is a fine grained sticky soil which results from the decomposition and weathering of rocks. Clay has a structure which allows the mineral to be impermeable to water.

Clays are divided into two classes: residual clay, found in the place of origin, and transported clay (also known as sedimentary clay) which has been removed from the place of origin by erosion or deposition.

Clay minerals can be divided into four major groups, each with different characteristics and uses. Brick clay is most common in Hertfordshire and is used mainly for the production of facing and engineering bricks, pavers, clay tiles for roofing and cladding.

The county council uses British Geological Survey (BGS) data for information about mineral resources and guidance on mineral planning policy and legislation. BGS provides public-good science for government, and research to understand earth and environmental processes, providing objective and authoritative geoscientific data, information and knowledge to help society use its natural resources responsibly.

3. Hertfordshire’s Brick Clay Resources

Hertfordshire’s main brick clay resource is found in the north west of the county. Figure 1 shows the superficial deposits, which are the geologically recent deposits, overlaying the bedrock geology.

Although clay is apparent over much of the north west of Hertfordshire, the deposits can be patchy and are variable in quantity, quality and thickness.
The main brick clay resource is located in the Hemel Hempstead area and has been worked at a number of sites. Currently the scale of working for brick clay in Hertfordshire is relatively small, with only two sites granted permission for extraction and one existing brickworks.

The specialist brickworks (Bovingdon Brickworks) recently stopped producing bricks but has historically made them from local mottled clays of Reading Formation and Clay-with-Flints. Bovingdon Brickworks has a long history of traditional brick making and the bricks produced are unique due to the characteristics of local clay reserves and the processes used to fire the bricks, giving them a unique rich colour and texture.

Bovingdon Brickworks is located at Pocket’s Dell Quarry, close to Berkhamstead on the far west of the county.

Figure 1: Geological map of the main mineral resources of Hertfordshire (Taken from Hertfordshire LAA 2016)
4. Planning for Clay

National Policy

National planning policy and guidance for minerals sets out the requirements for the county council to plan for clay, which is regarded as an industrial mineral.

Paragraph 146 of the NPPF\textsuperscript{2} introduced a requirement of mineral planning authorities to provide a stock of permitted reserves of at least 25 years for brick clay whilst taking account of the need for provision of brick clay from a number of different sources to enable appropriate blends to be made.

In line with national policy the Minerals Local Plan will need to define Mineral Safeguarding Areas (MSAs). These are areas which contain specific minerals resources of local and national importance. The areas are safeguarded to avoid the mineral being sterilised by non-mineral development. Mineral Consultation Areas (MCAs) will be defined based on the MSAs'. If an application for non-mineral development is submitted in the MCA, the Minerals Planning Authority should be consulted.

Adopted Minerals Local Plan

The previous Minerals Local Plan (2007) was produced before the change in national policy required the provision for 25 year supply of clay, so does not identify clay reserves. The current policy in relation to clay is outlined below:

<table>
<thead>
<tr>
<th>Mineral Policy 6: Other non-energy minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposals for chalk or clay extraction will only be permitted if:</td>
</tr>
<tr>
<td>i) it can be demonstrated that need for the mineral cannot be met adequately from existing permitted reserves of other sources</td>
</tr>
<tr>
<td>ii) the need for mineral in question can clearly be demonstrated to outweigh all adverse effects of the proposed development.</td>
</tr>
</tbody>
</table>

The policy and supporting text in the adopted plan recognise that there are limited brick clay resources and that the national guidance at the time did not require the maintenance of a stock or landbank of permitted reserves.

The adopted policy in the Minerals Local Plan is out of date due to changes in national policy so must be reviewed to reflect current requirements. A new section on clay is proposed in the review of the Minerals Local Plan.

5. Developing a strategy for brick clay provision

The Hertfordshire Local Aggregate Assessment (2017) recognises that the brick clay reserves around Bovingdon are unpredictable due to the nature of the deposit. In accordance with the current planning permissions, the county has permitted reserves totalling 27.5 years (9yrs at Pockets Dell Quarry and

18.5yrs at Shantock Hall Lane). However, following recent investigations, the reserves at Pockets Dell Quarry are now considered to be significantly lower than initially predicted due to the intermittent nature of the reserve. Based on this, it is unlikely that the present supply of permitted reserves is actually over 25 years, as required by national policy.

**Issues and options**

Inline with national policy requirements, three possible options to provide sufficient levels of permitted reserves of brick clay were identified for the emerging Minerals Local Plan:

- **Option 1** - Mineral Safeguarding Areas (MSA) with Minerals Consultation Areas (MCA)
- **Option 2** - Preferred Areas
- **Option 3** - Permitted Reserves

These were presented to consultees within the Initial Consultation document.

Sourcing clay from outside Hertfordshire boundaries was not considered at the Initial Consultation stage of Plan production. However, national policy highlights that the provision of brick clay from a number of different sources is important to enable appropriate blends to be made. This is particularly important as the bricks created in the Chilterns area are historically used in restoration of existing buildings with a distinctive architectural character and the blend of clays is important to the finished bricks. Whilst the Minerals Local Plan would not seek to identify clay resources from outside of Hertfordshire, policy may be required to enable the cross-boundary supply of clay for brickworks to blend minerals in order to make particular bricks.

**Option 1 - Mineral Safeguarded Area (MSA) and Mineral Consultation Area (MCA)**

Mineral Safeguarding Areas are the allocation of an area of known mineral resources where there has been evidence to suggest that clay resources are present. The purpose of safeguarding an area is to protect the resource from being sterilised by non-mineral development.

The safeguarding process does not ascertain the amount of mineral that is able to be extracted, nor have economic or full environmental assessments been carried out. Sites within these areas therefore would still require the approval of a planning application supported by detailed information.

A Mineral Safeguarding Area does not automatically prevent other forms of development in these areas; prior extraction of minerals would need to be investigated.

Mineral Consultation Areas assist mineral safeguarding by facilitating discussions between the relevant interested parties and ensures that District/Borough councils consult the County Council before determining
application for development in Mineral Consultation Areas in order to safeguard the mineral resources.

Defining Mineral Consultation Areas enable developers to consider the implications of mineral resources at an early stage of any proposals.

With this approach, the Minerals Local Plan would include a policy on minerals safeguarding and mineral consultation areas. The defined safeguarding and consultation areas (MSAs and MCAs) should be reflected in district/borough councils Local Plans and policies maps to assist the consultation procedure for the Mineral Consultation Areas.

**Option 2 - Preferred Areas**

Preferred areas are locations in which the Mineral Planning Authority would ideally like mineral extraction to take place. There may be more than one preferred area in a plan which would collectively meet the anticipated need for the minerals. Preferred areas will have been subjected to a site selection process and identified as suitable sites for extraction using the results from the site selection process, available commercial information and planning constraints. A planning application would still have to come forward and provide suitable evidence to suggest that any adverse environmental impacts can be overcome.

**Option 3 - Permitted reserves**

A permitted reserve relates to approved planning permissions. This is an area of land which has an approved planning application(s) which permits the extraction of 25 years’ worth of clay reserves or more. Planning permissions can also be cumulative which collectively results in 25 years’ worth of clay.

6. **Initial Consultation Responses**

Below is a brief summary of the main representations made at MLP Initial Consultation stage (August 2015) and the HCC responses in respect of actions related to transport within issues 16 set out in the MLP Initial Consultation document.

**Issue 16:**

How should the Minerals Local Plan encourage and support the extraction of brick clay so that the county can meet the requirement of national policy to have 25 years’ worth of permitted reserves?

The consultation responses were inconclusive with regards to choosing a preferred option to encourage the extraction of brick clay. Equal support was given for the three suggested options.

See next page for examples of consultee responses to issue 16.
<table>
<thead>
<tr>
<th>Comment ID.</th>
<th>Issue No.</th>
<th>Name of Consultee</th>
<th>Summary of Representation</th>
<th>HCC Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLPIC156</td>
<td>16</td>
<td>Cemex UK Operations Ltd (Kirsten Hannaford-Hill)</td>
<td>Identify MSA/MCAs Include policy to support extraction</td>
<td>See General Statement</td>
</tr>
<tr>
<td>MLPIC206</td>
<td>16</td>
<td>CPRE Hertfordshire (Steve Baker)</td>
<td>The MLP should include a policy that provides general support to planning applications that propose to extract brick clay. Such support should be conditional on the proposal meeting appropriate criteria to ensure that extraction avoids sensitive locations and avoids harm to communities and the environment.</td>
<td>See General Statement</td>
</tr>
<tr>
<td>MLPIC267</td>
<td>16</td>
<td>Dacorum Borough Council (Francis Whittaker)</td>
<td>Dacorum’s comments focus on Chapter 11: Clay due to clay being the principal mineral working in the borough. Notes that the MLP and the Clay Topic Paper state the need to ensure a 25-year supply of brick clay and Bovingdon brickworks would contribute towards this aim. Support the continued working of clays in this location (subject to environmental controls and restoration measures being in place) and the local jobs the Brickworks provides. With regards to Issue 16, we have no strong views over the suggested options as they affect the rest of the County. It is likely that each has its role to play in ensuring supply is secured/maintained dependent on circumstances. Main concern is that any MSAs, MCAs and Preferred Areas defined under Options a and b should be designated sensibly so as not to affect other forms of necessary development in the County coming forward. The districts are having to face the challenge of accommodating significant future growth in housing and associated infrastructure in the County, and this</td>
<td>It is recognised that the main clay resource area which supports the current brickworks in the county falls within the Dacorum Borough. It is proposed that the MLP will identify MSA and MCAs based on the available BGS information to safeguard clay resources from sterilisation by non-minerals development. It is intended that the MCA for clay will follow a similar consultation procedure to MCAs for sand and gravel. The MPA should be consulted on applications within this area to provide comment on sterilisation issues, however it is recognised that there is competing pressure for growth and the MSA/MCAs do not create the presumption that all minerals will be</td>
</tr>
</tbody>
</table>
approach should not sterilise opportunities for necessary development. Notes the methodology applied to MSA/MCA for sand and gravel resources in Chapter 10 and we assume a similar general approach would be applied to clay workings. Option c (support for applications to extract clay) seems a reasonable approach given the importance of brick clay, but it is essential that this does not override the need for environmental controls and restoration measures in each case. We are pleased to see this point is highlighted in para. 11.14 of the MLP. Support the principle of identifying a MSA/MCA for the Bovingdon brickworks under Option a. This would seem a prudent approach given its important role. The works fall a reasonable distance from the south western edge of the village so would not immediately interfere with any future development options should we consider this route in looking at future housing growth. Should you seek to identify a MSA/MCA then we would like the opportunity to comment on the boundary(ies) at the appropriate stage.

worked. The council would seek views of Dacorum Borough Council and other stakeholders when identifying MSAs and MCAs and would continue to hold discussion with the districts during plan production. It is also intended the MLP will include a policy for clay. However applications for brick clay extraction would still be subject to assessment against the other policies contained within the MLP for environmental measures and restoration. It is not considered suitable to assess the clay resources with a similar site selection methodology to sand and gravel in order to identify preferred areas due to difficulties for land ownership and the availability of data.
7. Additional Consideration 2016

Bovingdon Brickworks ceased producing bricks between the Initial Consultation and the Draft Plan Consultation. The site remains operational, selling stockpiled bricks and undertaking other brick sales. Whilst the site does not currently make bricks, there is no indication that the infrastructure for brick-making will be removed. The emerging MLP will therefore continue to safeguard Bovingdon Brickworks and seek to provide 25 years of permitted reserves in line with national policy.

8. Other Authorities approach to this issue

Other Mineral Planning Authorities approach to the issue of brick clay and safeguarding has been compiled below. However, the difference between these authorities and Hertfordshire is that most of the authorities have sufficient resources of clay to meet the requirements for a 25 year supply.

**Essex** Minerals Local Plan (adopted July 2014) has sufficient planning permission at the existing Brick clay sites to provide the required landbank. As such, no further provision is required over the plan period. The plan has designated Minerals Safeguarding Areas (MSAs) for brick clay and safeguards existing, permitted, preferred and reserve mineral sites and mineral supply infrastructure.

**Kent** Minerals and Waste Local Plan 2013 – 2030 does not have any existing sites, but has sufficient planning permissions for clay over the plan period if any of the dormant or closed brickworks is re-opened or new brickworks are established. Therefore, there is no need to identify further reserves of brick clay in the Mineral Sites Plan. Kent does not safeguard chalk and clay as they are abundant across the county.

**Buckinghamshire** Minerals and Waste Core Strategy (adopted Nov 2012) has a large permitted reserve at Calvert Landfill Site which is only being worked slowly, primarily for landfill restoration purposes. An operational brickworks exists in Bellingdon just west of the Hertfordshire-Buckinghamshire border. The Core Strategy includes a policy for ‘Non-Aggregate Minerals Working’ and a published minerals proposals map identifies substantial areas of brick clay.

**Cambridgeshire and Peterborough** Minerals and Waste Core Strategy Development Framework (adopted July 2011) has significant reserves of brick clay and has two major operating brickworks within the Plan area. Existing planning permission for extraction of brick clay provides for a 25 year period. A strategic allocation has also been made at Whittlesey Brickworks complex in order to maintain a stock of long term permitted reserves to justify the substantial investment that will be required in the works to maintain emission standards.
**Central Bedfordshire** Minerals and Waste Local Plan (Strategic sites and policies adopted January 2014) has extensive clay deposits within the Plan area however currently there are no operational sites. There is a large permitted reserves of clay in the Marston Vale area to the south-west of Bedford. Apart from occasional demand for engineering material, there is no demand for large scale clay extraction, and no new sites for clay are allocated in the Plan. Minerals Safeguarding Areas (MSAs) are identified on the Policies Map and a policy which set out the type of development that can take place within the MSAs and the potential need for a Mineral Resource Assessment prior to development taking place within these areas.

9. **Way Forward for the Draft Plan**

Taking account of the inconclusive outcome of the Initial Consultation, the additional considerations that have come to light since the Initial Consultation, and the discovery that the permitted reserves at Pocket’s Dell Quarry are significantly lower (but not explicitly known) than initially stated in the planning permission, the Draft MLP will incorporate a combination of the options identified in section 5.

The Draft MLP will identify Minerals Safeguarding Areas and Mineral Consultation Areas for clay based on available British Geological Survey information. These will protect clay resources from non-minerals development that might sterilise existing mineral reserves. The Draft MLP will also include a policy to support applications proposing extraction of clay for use at a specified brickworks if the level of permitted reserves for that brickworks is below 25 years.

It was not considered suitable to assess clay resources with a similar site selection methodology to that used for sand and gravel due to difficulties with land ownership and the availability of geological data with comprehensive coverage to accurately identify the intermittent nature of Hertfordshire clay reserves. Therefore, the Draft MLP does not identify Preferred Areas.

The draft Policy is proposed as follow:

**Policy 6 Brick Clay**

**Bovingdon Brickworks** is a safeguarded and strategic site for the extraction of brick clay and the production of bricks.

**Bovingdon Brickworks** will be supported by the following two Specific Sites in Hertfordshire, as identified on Inset Map 5 and the Policies Map:

- Pocket’s Dell Quarry; and
- Land at Cox and Croft Fields, Shantock Hall Lane.
The Mineral Safeguarding Areas for clay, is shown on the Policies Map.

Proposals for new sites or extensions to existing brick clay workings will be permitted where it can be demonstrated that:

- the level of permitted reserves for a specified brickworks is insufficient to maintain brick clay production for at least 25 years;
- the proposal directly contributes towards the required supply for brick clay at the specified brickworks; and
- the proposals are consistent with other policies within this plan.

To further support the safeguarding of Clay reserves, an ‘Excluded Development’ list is provided within the supporting text for Policy 10: Mineral Safeguarding. Excluded developments are included to avoid unnecessary consultation for applications that fall within Mineral Safeguarding Areas and Minerals Consultation Areas. The list sets out what kinds of development are excluded from consultation as they are unlikely to bring about the unnecessary sterilisation of minerals. The ‘Excluded Development’ list for developments in Mineral Safeguarding Areas and Minerals Consultation Areas that do not require consultation with the minerals planning authority can be seen below:

<table>
<thead>
<tr>
<th>Mineral Type</th>
<th>Excluded Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand and Gravel (same for both MSA and MCA)</td>
<td>Householder planning consent: Applications for alterations to existing single buildings including works within the boundary/garden of a house i.e. domestic extensions, conservatories, loft conversions, dormer windows, garages and similar structures (car ports, outbuildings) within the curtilage of an existing dwellinghouse</td>
</tr>
</tbody>
</table>
| Brick Clay (same for both MSA and MCA) | Applications for Advertisement Consent  
 Applications for Listed Building Consent  
 Lawful Development Certificate (LDC) for existing use, proposed use, or operation or activity in breach of a planning condition  
 Prior Notifications (telecommunications; forestry; agriculture; demolition)  
 Applications for removal, variation and approval of conditions  
 Applications for Tree Works (including consent under Tree Preservation Orders and notification of proposed works to trees in conservation areas) |
- Applications for change of use of existing development, unless intensifying activity on site
- Applications for reserved matters including subsequent applications after outline consent has been granted
- Application for non-material amendments
- Applications that are in accordance with the development plan where the district/borough local plan took account of the prevention of unnecessary mineral sterilisation and determined that prior extraction should not be considered when an application for development in a MSA come forward (Sand and Gravel, and Brick Clay only)
- Applications for small-scale urban infill development within existing built-up areas i.e. the development of a small gap between existing buildings/enclosed by other types of development
- Developments within a conservation area within existing urban areas
- Applications for prior approval