Towards a Minerals Local Plan:
Spring 2018 Consultation

CHAPTER 7

7.3 Brick Clay and Fireclay

December 2017
Brick Clay and Fireclay

Introduction and Background

7.3.1 Brick clay is used in the manufacture of bricks, tiles and other clay products. Most brick clays are red firing, producing red coloured products. Fireclays are important for the manufacture of buff and pale-bodied bricks.

7.3.2 Clay and shale can also be used for engineering and environmental purposes i.e. capping and lining areas of landfill and lining water bodies for general constructional purposes (fill). Minerals used for this purpose are included in Chapter 9 of this Plan. Clay and shale are also used in the production of cement; minerals used for this purpose are included in Chapter 7.

7.3.3 Clay, shales and mudstones occur extensively in the Plan area but, only a small proportion are suitable for brick or clay products manufacture (most are too high in carbon and sulphur). The most economically important are of Carboniferous age and are associated with the Millstone Grit and the Coal Measures, the latter is also a potential source of fireclays.

7.3.4 Brick clay workings tend to be long term operations and may involve working different parts of the quarry for blending purposes. Clay working takes place on a campaign basis rather than continuous. Before delivery to the manufacturing plant there will be a need for the excavated clay to be weathered prior to blending. This requires the creation of stockpiles usually at the quarry.

7.3.5 More detailed information about Brick Clay and Fireclay working can be found in the following Background Paper which has been updated to November 2017.
Existing position

National

7.3.6 A recent report\(^1\) on trends in the UK production of Minerals states that brick clay consumption has declined significantly since the 1970s from 18 million tonnes in 1974 to 4 million tonnes in 2011. The initial decline was mainly attributable to the demise of common bricks in houses as a result of alternative construction methods and smaller houses. More recently, the decline can be attributed to a significant reduction in the number of new houses built and hence the need for bricks.

Local

7.3.7 The national picture is reflected locally in that there are currently, at 2017, no brickworks within the Plan area; all brick clay excavated is exported to works in adjoining mineral planning authority areas. Brick Clay from Mouselow Quarry, Glossop, operated by Wienerberger, is exported to the company’s brick works at Denton, East Manchester. Brick Clay from Waingroves Quarry, Ripley, operated by Forterra Building Products Ltd, is exported to the Company’s brickworks at Kirton in Nottinghamshire and Measham and Desford in Leicestershire. Brick Clay excavated from Foxlow Tip is stockpiled on site following closure of the brickworks at Barrow Hill. Fireclay extracted at Lodge House, Smalley is used within the Plan area, to supply the pottery manufacturers at Denby. Map 1 shows the resources, quarries and manufacturing sites at 2017.

\(^1\) Page 17, Trends in UK Production of Minerals, UK Minerals Forum, January 2014
Map 1: Clay Resources, Quarries and Manufacturing Sites 2017
Future Requirements

National

7.3.8 A key factor influencing the demand for bricks and hence the demand for brick clay is the rate of house building. Recent Government's initiatives to stimulate the housing market appear to be having some effects. The production of bricks has increased from 1.4 billion in 2010 to 1.9 billion in 2015 before falling slightly to 1.8 billion in 2016. Brick Clay production increased from 4 mtpa in 2010 to 4.7 mtpa in 2014, the latest year that national figures are available.3

Local

Mouselow Quarry

7.3.9 Based on a future annual production rate of 45,000 tonnes per annum (tpa) permitted reserves (of sufficient quality for brick making) are estimated to be depleted in 2022, well before the end of the Plan period in 2030. Weinerberger has informed the MPA that the Company wishes to promote a small extension to the extraction area at Mouselow Quarry for inclusion in the Plan.

7.3.10 Waingroves Quarry

Based on a future annual production rate of 80,000 tpa permitted reserves are estimated to last to 2053, well beyond the Plan period.

Foxlow Tip

7.3.11 Clay material consisting of 250,000 tonnes is stockpiled on site. Its future use will depend upon the reopening of the Brickworks at Barrow Hill or an alternative.

Lodge House Farm

7.3.12 The extraction of 50,000 tonnes of fireclay in association with Lodge House Farm opencast coal operation has ended and the clay moved off site to Denby pottery in Derbyshire.

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2 Table 9, Monthly Statistics of Building Materials and Components, October 2017, DptBIS
3 United Kingdom Minerals Yearbook 2015, BGS
National and Local Planning Policy


7.3.13 There are no national demand targets for the supply of industrial minerals, such as brick clay. Mineral Planning Authorities (MPAs) are required to plan for a steady and adequate supply of industrial minerals to support their likely use in industrial and manufacturing processes. Safeguarding or stockpiling should also be encouraged to ensure that the minerals remain available for future use. For brick or clay products manufacture a 25 year stock of permitted reserves of brick clay should be maintained to support the level of actual and proposed investment required to maintain or improve an existing plant or to provide a new kiln. MPAs should also take into account the need for the provision of brick clay from a number of different sources to enable appropriate blends to be made. The NPPF requires that, as far as practical, landbanks for non-energy minerals should be maintained from outside National Parks. Coal producers should be encouraged to extract separately and, if necessary stockpile, fireclay so that it remains available for use.

7.3.14 NPPG\(^4\) provides specific advice on how MPAs should plan for industrial minerals. It notes that recognition should be given to any marked differences in geology, physical and chemical properties, markets and supply and demand between different industrial minerals which can have different implications for their extraction. It also stresses the economic importance of industrial minerals for downstream industries; the loss of supply of one mineral may jeopardise the whole manufacturing process.

7.3.15 NPPG\(^5\) provides advice on how and when the required stock of permitted reserves for industrial minerals should be calculated. It states that stocks of

\(^{4}\) National Planning Practice Guidance, Paragraph: 086 Reference ID: 27-086-20140306

\(^{5}\) National Planning Practice Guidance, Paragraph: 088 Reference ID: 27-088-20140306
reserves should be calculated when a planning application is submitted or when new capital investment is proposed.

7.3.16 The NPPG provides advice on the way in which MPAs should plan for mineral extraction. It states that priority should be given to identifying (allocating) specific sites for mineral working followed by preferred areas and areas of search. Site allocations should be restricted to where viable resources are known to exist, landowners are supportive of mineral development and the proposal is likely to be acceptable in planning terms.

7.3.17 The adopted Derby and Derbyshire Minerals Local Plan contains a policy (MP32) to allow for the extraction of clay for use in the clay products industry subject to satisfying need and environmental impact criteria. However, the Plan was adopted in 2002 and has not been prepared to accord with the new NPPF and therefore its value in formulating a new strategy is somewhat limited.

Consultation So Far – What you have told us

Issues and Options Consultation 2010

7.3.18 The Issues and Options Consultation 2010 identified that the key issues for making provision for clay were that the demand for brick clay and fireclay was industry led and particularly susceptible to economic fluctuations leading to periods of decline resulting in mothballing or shutting down of extraction and processing facilities. It indicated that any approach would need to maintain essential supplies to consumers, whilst seeking to encourage rapid working and reclamation of sites to minimise environmental impact and avoiding the stocking of clays where it would delay reclamation. The Issues and Options Consultation suggested that the most appropriate way of making provision for clay working would be to have a criteria based policy in the Plan, based on the above considerations.

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6 National Planning Policy Guidance, Paragraph: 008 Reference ID: 27-008-20140306
7.3.19 A criteria based policy approach was well supported by respondents to the consultation. Suggestions were also made that we should look further at the most appropriate location for stockpiling i.e. at the quarry or at the brick works/clay products manufacturing site; some respondents felt that it was not always practicable or desirable to stockpile at the manufacturing unit. Further information is available in the following documents:


Responses to Derby and Derbyshire Minerals Local Plan Issues and Options Consultation, 2011.

Sustainability Appraisal (SA) of the Issues and Options Paper 2010

7.3.20 Details on the purpose of the SA process is set out at paragraph 7.1 of this Chapter. A sustainability appraisal was carried out on the suggested approach set out in the Issues and Options Paper as to how provision should be made for the supply of clay. It concluded that the suggested criteria based policy is in-line with the current adopted Minerals Local Plan. Therefore, the impacts of including a similar policy in the new Local Plan would have a negligible impact on the baseline position. In terms of the merits of this approach, there would be positive implications for landscape, biodiversity, natural resources and local communities. However, restrictions on the working and stockpiling of clays could make extraction less efficient. The full appraisal is set out in the following document:

Towards a Minerals Local Plan: Rolling Consultation 2015-2017
Interim Sustainability Appraisal (SA) Report, November 2013

Towards a Minerals Local Plan: Rolling Consultation 2015-2017
7.3.21 Since the Issues and Options Consultation, the NPPF and NPPG have been published; we have, therefore, revisited the issues and options surrounding the planning for the supply of brick clay and fireclay, in the light of this new policy and guidance. We have looked at the extent to which the Issues and Options Consultation and the responses to it remain helpful to developing a strategy and taken on board additional evidence collected since 2010.

7.3.22 Of particular importance is that the Issues and Options Consultation included a ‘call for sites’ from any developer wishing to promote a site for mineral development over the plan period. None came forward at that time but in December 2014, Wienerberger, the operator of Mouselow Quarry, put forward a small extension to the extraction area at the quarry for inclusion in the Plan.

7.3.23 The next stage in preparing the Plan was the ‘Towards a Minerals Local Plan: Rolling Consultation’ which commenced in 2015. This Consultation consisted of a series of individual Papers. In the light of the new national policy and guidance, the MPAs were seeking to define the vision and objectives and develop strategies to achieve those objectives and deliver the vision.

Towards a Minerals Local Plan - Rolling Consultation 2015-2016: Towards a Strategy for Brick Clay and Fireclay

7.3.24 The ‘Towards a Strategy for Brick Clay and Fireclay’ Paper, January 2015 identified several issues and options (see paragraph 5.8) that would need to be considered in developing a strategy to maintain the supply of brick clay and fireclay over the Plan period. It was accompanied by a background supporting Paper. Further information can be found in the following documents.
7.3.25 The paragraphs below include a summary of the representations that were received to the Papers. Details of the representations received, together with considered responses and outcomes for this Consultation is set out in the following document.

Issues and Options for the emerging Strategy

Issue 1: Making provision for the supply of brick clay.

7.3.26 In view of the promotion of a site for allocation in the Plan, options for ensuring the supply of Brick Clay were widened from a criteria based policy at the Issues and Options Stage to options which encapsulated both allocations and a criteria policy. Three options were out forward:

Option 1: Make provision through existing permitted reserves and allocated sites
Option 2: Make provision through existing permitted reserves and a criteria based policy
Option 3: Make provision through existing permitted reserves and allocated sites and a criteria based policy
7.3.27 Options 1 and 3 received equal support.

**Issue 3: Specific identification (allocation) of land for brick clay working at Mouselow Quarry**

7.3.28 Two respondents supported the allocation of land at Mouselow Quarry.

7.3.29 The following issues were also included for comment in the Strategy but received no responses.
- Issue 2: A criteria based policy – emerging approach
- Issue 4: The assessment of sites for allocation in the Plan
- Issue 5: Making provision for the stockpiling of brick clay
- Issue 6: Fireclay – Options for making provision for an adequate and steady supply of fireclay
- Issue 7: Making provision for an adequate and steady supply of clay and shale used for other purposes

**Towards a Minerals Local Plan - Rolling Consultation 2015-2016:**
**Site Assessment Methodology - Hard Rock Quarry Sites**

7.3.30 A Site Assessment Methodology, April 2016 that would be used to assess the suitability of hard rock quarry sites for allocation in the Plan formed part of this Consultation. Three responses were received in relation to the weighting of the criteria, the need to take mitigation on board and the use of ‘buffer zones’ to assess particular impacts. Changes were made to the Methodology Paper which was republished in December 2016 and used to carry out initial assessment of promoted sites.

**Towards a Minerals Local Plan–Rolling Consultation 2016/2017**
**Site Assessment Methodology - Hard Rock Quarry Sites and Initial Assessments of promoted sites**

7.3.31 A revised Site Assessment Methodology- Hard Rock Quarry Sites, December 2016 and an initial assessment of the promoted extension site at Mouselow
Quarry were included in this Consultation. Details can be found in the following documents:

Towards a Minerals Local Plan – Rolling Consultation 2016-2017:
Site Assessment Methodology - Hard Rock Quarry Sites

Towards a Minerals Local Plan – Rolling Consultation 2016-2017:
Initial Assessment Sheet and Maps – Mouselow Quarry

7.3.32 Over 30 separate representations were made on the Methodology Paper covering a wide range of issues including weighting, buffer zones, mitigation, local amenity impacts and impacts on ecology and the historic environment. One comment has been received relating to Mouselow Quarry, stating that account should be taken of any impact on the Peak District National Park which is located approximately 2km away. Details of the representations received, together with considered responses and outcomes for this Consultation is set out in the following document.

Towards a Minerals Local Plan: Spring 2018 Consultation
Report of Representations, December 2017

Drop- In Sessions, February 2017

7.3.33 The document referred to above also contains details of issues raised at drop-in sessions held by the MPAs in locations where new areas of working were being promoted by operators.

7.3.34 All responses received have been considered and where relevant used to inform the Proposed Approach set out at Section 8.
Duty to Co-operate

7.3.35 Duty to Co-operate is a way of planning strategically for significant cross border issues and a legal requirement of Plan preparation. In preparing the Minerals Local Plan the Councils have identified the following strategic cross-boundary issues relating to planning for the provision of Brick Clay.

- The supply of brick clay from Mouselow Quarry in Derbyshire to Denton Brickworks in east Manchester; and
- The supply of brick clay from Waingroves Quarry in Derbyshire to brickworks in Nottinghamshire and Leicestershire.

7.3.36 The Councils have engaged in meetings and discussions with relevant authorities, mineral operators and other stakeholders. Co-operation has focussed on the need to ensure a continuous supply of brick clay to brick works lying outside of the Plan area and fed into the proposed approach set out below.

7.3.37 All Duty to Co-operate Issues together with the Stakeholders involved have been set out in the following Background Paper which has been updated to add additional matters that have arisen since the Plan has progressed. Further information can be found in the following Report.

Towards a Minerals Local Plan: Spring 2018 Consultation
Duty to Cooperate Report: Background and Progress,
December 2017

Sustainability Appraisal

7.3.38 The Sustainability Appraisal process is a way of promoting sustainable development through the better integration of sustainability considerations throughout the preparation of the Plan. The process involves testing the impact of the Plan against a series of Sustainability Objectives. Where the process recommends improvements to the Plan, these will be incorporated. A
A sustainability appraisal was undertaken on all the Papers that constituted the Towards a Minerals Local Plan Rolling consultation 2015-2017 and all of the sites that were promoted by operators. The full appraisal is set out in the following document:

Towards a Minerals Local Plan: Spring 2018 Consultation
Interim Sustainability Appraisal (SA) Report, December 2017

Where appropriate the findings of the SA have been incorporated into the Proposed Approach set out below.

Outcomes for the Proposed Approach: Brick Clay and Fireclay
Vision and Objectives

7.3.39 Chapter 3 of this Consultation contains the Plan’s draft Vision and Objectives. The Vision is about what the Plan area will be like in terms of mineral development in 2030 if the policies and proposals of the Plan have been successfully delivered over the Plan period. The Objectives set out the key goals that will need to be attained to make the Vision a reality. The contribution that the individual draft policies set out in this Chapter will make towards achieving the overall draft Vision and Objectives of the Plan, are set out below the Policies for Brick Clay at the end of the Chapter.

7.3.40 The Rolling Consultations have included key Issues and Options that needed to be addressed in order to develop a Strategy for ensuring the supply of Brick Clay and Fireclay.

Issue: Making provision for an adequate and steady supply of Brick Clay

7.3.41 There are no national demand targets for the supply of brick clay but the Plan is required to make provision for an adequate and steady supply to support its
likely use in manufacturing processes. To support investment in maintaining or developing a new kiln, a 25 year stock of permitted reserves of brick clay should be maintained at individual brick or clay products works.

7.3.42 In order to maintain an adequate and steady supply of Brick Clay, three Options were put forward for consultation:

Option 1: Make provision through existing permitted reserves and allocated sites

Option 2: Make provision through existing permitted reserves and a criteria based policy

Option 3: Make provision through existing permitted reserves and allocated sites and a criteria based policy.

7.3.43 Options 1 and 3 received equal support. It is considered, however, that Option 3 should be the preferred approach for the following reasons. There are no national demand targets for brick clay; the plan has to make provision for the supply of both anticipated and unforeseen demand. Such demand may take the form of additional reserves required at an existing quarry to maintain supply or a new quarry to support a new brick or clay products works. There are currently no such works within the Plan area; the current brick clay quarries supply brickworks outside of the County. At Mouselow quarry which supplies Denton Brickworks we know that there is a need for additional reserves before the end of the Plan period and the operator, Wienerberger, is actively promoting an extension to the quarry.

7.3.44 Option 3 would provide both flexibility to meet unforeseen needs over the Plan period and the clarity and certainty of supply, through the allocation of sites where we know there is an identified need for additional reserves and known economically viable resources exist and operators/landowners are supportive and actively promoting minerals development.

Alternatives

7.3.45 Option 1 is unsuitable in that only one site has been promoted for allocation over the plan period and the MPA has insufficient information about the scale
and commercial viability of the remaining resource that would enable the identification of sites, preferred areas or areas of search from which any other future provision of brick clay or fireclay could be made. This option, in isolation, therefore would not provide sufficient flexibility to meet any unforeseen increased demand for additional reserves of brick clay to be worked during the Plan period.

7.3.46 Option 2 would provide flexibility to meet both known and unforeseen needs for new working, however, it would not provide the same clarity and certainty of delivery that identifying specific areas of land would bring for both, companies and local communities and which NPPG prioritises as the way to ensure supply above preferred areas and areas of search.

Sustainability Appraisal

7.3.47 The Interim SA Report, November 2017 confirmed that Option 3 was the most positive for minerals providing both certainty through allocations and flexibility through a criteria based approach.

Outcome for the Proposed Approach

7.3.48 The Proposed Approach proposes to make provision for the supply of brick clay through existing permitted reserves; it also includes a criteria policy against which proposals for additional reserves will be considered and it will propose the allocation of any sites promoted by operators and considered acceptable for working, in principle, to commence during the Plan period to 2030. The allocation of specific sites is set out at Chapter 14 of the Plan.

Issue: A criteria based policy – proposed approach

7.3.49 Option 3 for the supply of brick clay would require a criteria based policy to be used to assess new proposals for brick clay working. Consultees were asked to comment on the components that such a policy should contain; no comments were received on this matter.

7.3.50 The suggested components were as follows:
A presumption in favour of proposals for the extraction of brick clay where additional reserves are required to meet an identified need for materials to supply a brickworks or clay products manufacturing site and where,

- they will contribute towards the maintenance of a landbank of at least a 25 year stock of permitted reserves and/or
- they are required to enable the appropriate blending of clays and/or
- they are required because of their particular chemical or physical composition.

7.3.51 In view of the lack of comments, it is considered reasonable to develop a policy approach in line with the ‘suggested components’ which accord with NPPF policies on planning for industrial minerals with particular regard to maintaining stocks of permitted reserves, allowing for blending and taking into account mineral specifications.

7.3.52 Additionally, whilst there are currently no brickworks within the Plan area, the Plan has to make provision for any unforeseen demand. In the interests of achieving sustainable development, the policy approach will include a requirement that, where possible, proposals for new brick clay quarries should be located as near as possible to the brickworks that they supply.

Outcome for the Proposed Approach
7.3.53 Include a criteria policy in the Plan to implement Option 3 in line with the components suggested above and contained in the Consultation Paper.  

Issue: Making provision for the stockpiling of Brick Clay
7.3.54 The stockpiling of Brick Clay is a particular feature of clay working which can impact on the speedy restoration of sites. Responses to the Issues and Options consultation suggested that the MPA should look further at the most appropriate

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location for stockpiling i.e. at the quarry or at the brick works/clay products manufacturing site; some respondents felt that it was not always practicable or desirable to stockpile at the manufacturing unit. In the most recent Consultation Paper\(^8\) consultees were asked to comment on the detailed wording of an emerging approach to clay stockpiling. No comments were received on this issue.

7.3.55 The suggested wording was as follows:

‘Planning proposals will need to include evidence to support the proposed location for stockpiling brick clay. This evidence should have regard to matters such as, size of site, topography, surrounding land uses, transport etc.

7.3.56 Where proposals include the location of stockpiles at the excavation site provision should be made for their progressive restoration as material is removed in order to minimise their impact.’

7.3.57 In view of the lack of comments it is considered reasonable to develop a policy approach that accords with the ‘suggested wording’ which would implement the NPPF policies on planning for industrial minerals with particular regard to stockpiling.

**Outcome for the Proposed Approach**

7.3.58 Include a policy in the Plan in line with the wording suggested in the Consultation Paper.

**Issue: Specific identification (allocation) of land for brick clay working**

7.3.59 Option 3 for the supply of brick clay would involve the specific allocation of sites for working where it is established that there is an identified need for additional reserves. The operator of Mouselow Quarry has indicated that additional reserves of high quality brick making shale will be required during the Plan

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period and is therefore promoting an extension to the area of extraction within the site boundary of the existing quarry as shown on the Map below.

7.3.60 In order to assess the suitability of promoted sites for inclusion in the Plan as allocations the MPA has prepared a Site Assessment Methodology and undertaken Assessments of the site. Further details of the assessment process and proposed site allocations are set out in Chapter 14.
**Issue: Fireclay – Options for making provision for an adequate and steady supply of fireclay**

7.3.61 Fireclay is not normally commercially viable on its own and almost all production is as a co or by-product of coal mining. In recognition of this the NPPF states that, coal producers should be encouraged to extract separately and, if necessary stockpile, fireclay so that it remains available for use.’ In view of this, Consultees were asked whether the Plan should adopt the approach of taking into account the benefit of working fireclay resources in association with coal resources in determining the overall acceptability of proposals for new coal working. No responses were received to this suggested approach.

**Outcome for the Proposed Approach**

7.3.62 In view of the lack of response and local steer, the MPA is reliant on national policy in formulating an approach. It is considered reasonable therefore to incorporate the need to make provision for the supply of fireclay in the development of a policy to allow for new coal working. Information on this policy can be found in Chapter 8 of this Plan.

**Issue: Safeguarding Brick Clay and Fireclay Resources**

7.3.63 The NPPF requires Plans to define Minerals Safeguarding Areas and include appropriate policies so that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development. Whilst clay, shale and mudstones are widespread, only limited deposits have sufficient qualities to make them economically important for the manufacture of bricks and clay products. The safeguarding of clay resources is addressed in Chapter 10 of the Plan.

**Issue: Making provision for an adequate and steady supply of clay and shale used for other purposes:**

7.3.64 Clay and shale can also be used for engineering and environmental purposes i.e. capping and lining areas of landfill or lining water bodies and for general constructional purposes (fill). Generally, the extensive clay and shale deposits within the Plan area can be used to source these uses (although it is
recognised that sometimes the specialist properties of brick clay or fireclay may be required for some construction purposes). Clay and shale for these purposes is often worked incidentally both in association with the extraction of other minerals and prior to non-mineral development or as borrow pits in association with major construction projects. The MPA therefore put forward an approach in the most recent Consultation⁹ that the working of clay for such purposes should be dealt with by other policies in the Plan covering borrow pits, prior extraction and the incidental working of clay in association with other minerals. No responses were received on this approach.

**Outcome for the Proposed Approach**

7.3.65 In view of the lack of response and local steer, the MPA is reliant on national policy in formulating an approach. The NPPF and NPPG do not include specific policies about clay working in such instances. It is considered reasonable therefore to include general polices in the Plan which would cover the working of clay from borrow pits in association with construction projects and the incidental working of clay in association with other minerals or prior to other development. These policies can be found in Chapter 9 of this Plan.

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Proposed Approach: Policies for Brick Clay

Policy MS10 Brick Clay Provision

Proposals for the extraction of Brick Clay will be supported where additional reserves are required to meet an identified need for materials to supply a brick works or clay products manufacturing site and where:

- They will contribute towards the maintenance of a landbank of at least a 25 year stock of permitted reserves and/or
- They are required to enable the appropriate blending of clays and/or
- They are required because of their particular chemical or physical composition and where
- The need for stockpiling will not significantly delay the reclamation of the site.

Proposals that accord with the criteria set out in MS10 will be supported provided that

- They are extensions of time and/or physical extensions to existing brick clay pits/quarries or
- Where this is not possible, they are located as near as possible to the site where the clay will be used

Contributes towards achieving proposed Objectives

- Objective 1 – Ensuring a Steady and Adequate Supply of Minerals
- Objective 2 - Delivering Sustainable Minerals Development
- Objective 3 - Achieving the most Appropriate Spatial Distribution of Mineral Development
Monitoring

7.3.66 The Plan, as set out in Chapter 3, will contain a number of objectives to be achieved over the Plan period, in order to achieve the Plan’s overall Vision. The effectiveness of the Plan’s polices and proposals, put in place to meet those objectives, will be monitored so that, if necessary, issues can be identified and addressed through a revision of the Plan, either in whole or part.

7.3.67 Policy MS13 of the Proposed Approach requires an adequate and steady supply of brick clay to be maintained throughout the Plan period. The maintenance of stocks of permitted reserves (landbanks) is way ensuring supply. To support a brick works a 25 year landbank should be maintained in accordance with NPPF. Whilst there are no brick works within the Plan area there are brick clay quarries which export to works in adjoining authorities. The MPA will monitor brick clay supply as set out in the Table below and liaise with the relevant adjoining MPAs to ensure that supply is maintained. Further
information on this issue can be found in the updated Duty to Cooperate Report\textsuperscript{10} and in Chapter 15 of the Plan.

**Table: Assessment of Stocks of Permitted Reserves (Landbanks) for Brick Clay**

<table>
<thead>
<tr>
<th>Brick Works and MPA Area</th>
<th>Quarry</th>
<th>Annual Brick Clay production in tonnes</th>
<th>Reserves at 31/12/2016</th>
<th>Current landbank to support works in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denton, Greater Manchester</td>
<td>Mouselow</td>
<td>45,000</td>
<td>180,000 (1,260,000)\textsuperscript{1}</td>
<td>6</td>
</tr>
<tr>
<td>Kirton, Nottinghamshire</td>
<td>Waingroves</td>
<td>80,000</td>
<td>3,050,000 (2,800,500)\textsuperscript{2}</td>
<td>35</td>
</tr>
<tr>
<td>Desford, Leicestershire</td>
<td>Waingroves</td>
<td>see above</td>
<td>see above</td>
<td>see above</td>
</tr>
<tr>
<td>Measham, Leicestershire</td>
<td>Waingroves</td>
<td>see above</td>
<td>see above</td>
<td>see above</td>
</tr>
</tbody>
</table>

Note \textsuperscript{1} Reserve figure taken from EM1 0617 16 Pre Application Advice Statement, June 2017. Figure in brackets includes permitted lower shales which will be relinquished if additional reserves secured.

Note \textsuperscript{2} New reserve figure in brackets estimates annual production of 80,000 tpa for the years 2014-2015, 90,000 for 2016.

**Do you have any comments on the proposed approach to ensuring the supply of brick clay and fireclay as set out in this Chapter?**

\textsuperscript{10} Towards a Minerals Local Plan: Winter 2017/2018 Consultation, Duty to Co-operate: Report of Background and Progress, December 2017