Further Information

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Front cover illustrations: Brownhills Miner and Ibstock Quarry, Aldridge. Picture of quarry taken by Walsall MBC with kind permission of Ibstock Brick Ltd.
# BLACK COUNTRY CORE STRATEGY
## SUBMISSION DOCUMENT

**Minerals Background Paper - Version 2 (Revised)**  
February 2010

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1. Introduction

1.1 This document explains the background to the development of the Core Strategy minerals policies MIN1 – MIN5, and provides an overview of the technical evidence underpinning the policies. An earlier version of this document was produced at the publication stage (November 2009), and it has been subsequently updated and revised where appropriate, for Submission (February 2010).

1.2 The main technical study on minerals is the Black Country Core Strategy Minerals Study by RPS Planning and Development Ltd (Black Country Minerals Study). The study included an analysis of geological and mineral resource information, and provided a comprehensive summary of the complex geology of the area and identified the mineral resources that are or may become of economic importance in the future.

1.3 However, since the Study was published in March 2008, new national and regional guidance has been published, new evidence has come forward on certain issues, and stakeholder engagement has continued. This paper summarises the key developments that have occurred since the Study was published, which have had a bearing on the development of the minerals policies. At Submission stage (February 2010) the authorities put forward number of Proposed Changes to the minerals policies for clarification, to correct factual inaccuracies, and/ or to address comments by stakeholders on the Publication document. Significant Proposed Changes are summarised in blue text.

1.4 The main policy changes of relevance to minerals have been the issue of the revised PPS12: Local Spatial Planning, new national and regional aggregates guidelines, the RSS Phase 2 Revision Options, and the emergence of proposals for a review of the sub-regional aggregates apportionments just before the Core Strategy was published. The Core Strategy minerals policies have been influenced by these recent policy developments.
1.5 New coal resource information has become available, as has information on prior extraction of minerals. The evidence base for aggregates and brick clay supply has also been updated, reflecting the latest WMRAWP surveys and further discussions with brick manufacturers.

1.6 Throughout the Core Strategy preparation process, the authorities have also been engaging with key stakeholders on key mineral issues. The Consultation Report (November 2009) summarises the meetings, events and correspondence which has taken place since the Core Strategy was first launched at the end of 2006.

1.7 During the preparation of the minerals policies, a number of cross-cutting issues were also identified. Some of these have been taken on board in other technical work such as the Black Country Core Strategy Phase Two Infrastructure and Deliverability Study by Mott MacDonald (November 2009), and have fed through into other Core policy areas.

1.8 The spatial objective for minerals (Spatial Objective 10), and the overall strategy for managing mineral resources in Policy MIN1 have developed out of the vision and objectives for minerals identified during the Minerals & Waste Stakeholder Event which took place in March 2007, and from the technical work and ongoing stakeholder engagement which has taken place since then. Sustainability Objective 12 embraces the prudent and efficient use of mineral resources, and the emerging minerals policies have also been subjected to and influenced by sustainability appraisal. The appraisal indicates that the published minerals policies are likely to have either neutral or positive effects.

1.9 The mineral policies themselves have evolved since the Preferred Options, and in some cases the core policy areas have changed in response to stakeholder comments or new evidence. For example, the policies on mineral safeguarding, aggregates and brick clay remain much the same, but CPA 24: Prudent Use of Mineral Resources is now addressed in waste policy WM5. Table M1 below shows how the Preferred Options Core Policy Areas have been translated into Core Policies in the publication document.
1.10 The evidence and recommendations of the Black Country Minerals Study, new information which has become available since the Study was published, further stakeholder engagement, and the results of sustainability appraisal have all helped to shape the final Core Strategy minerals policies. The following sections explain the background to each policy and the evidence which has informed its development.

**Table M1: Changes to Minerals Policy Areas following Preferred Options**

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<td>Policy MIN1, MIN5</td>
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2. Policy MIN1: Managing and Safeguarding Mineral Resources

2.1 Mineral Safeguarding Areas (MSAs)

Black Country Minerals Study – Key Findings and Recommendations

2.1.1 Safeguarding and avoiding needless waste of mineral resources are of particular importance in addressing Core Strategy Sustainability Objectives 3 and 12. The main source of evidence on the extent of mineral resources in the Black Country is the Black Country Minerals Study by RPS Planning & Development Ltd. The Study used the best and most up-to-date geological and mineral resource data available at the time, and identified the following mineral resources of potential economic importance:

- Sands and gravels (bedrock and superficial)
- Brick clays (in particular Etruria Marl)
- Dolerite
- Limestone
- Building stone (various)
- Coal Measures (and associated fireclay)

(See Sections 4.7 – 4.12 of the Study)

2.1.2 The Study recommended that options for mineral safeguarding should be further developed by:

- Confirming that the appropriate resource types are included in the proposed mineral safeguarding areas (MSAs),

- Further refining the MSAs proposed in the study, and
• Considering how the proposed MSAs may be incorporated into the Core Strategy through the Key Diagram, safeguarding policy and identification of areas for future mineral working (see paragraph 5.6.2)

It also recommended that existing mineral related infrastructure such as recycling/processing sites and transport infrastructure should be safeguarded (see paragraphs 1.3.36 and 1.3.42).

Baseline Evidence - Update

2.1.3 The Black Country Minerals Study used the best evidence available at the time it was prepared, which was principally the geological mapping and memoirs and mineral resource information covering the Black Country published by the British Geological Survey (BGS). However, since the publication of the Study, there have been further developments in policy and evidence which had to be taken on board in the development of MSAs:

• **New surface coal resource information has become available**\(^1\) from the Coal Authority under a licence agreement which allows them to use it for planning purposes.

• **Options for the RSS Phase 3 Revision (June 2009)**\(^2\) considered options for defining regional MSAs. The consultation paper specifically identified aggregates, brick clay and natural building stone as resources that could be included.

2.1.4 The Black Country authorities did not ask RPS to define the mineral commodity areas in detail in the Black Country Minerals Study, because at the time the project was commissioned, they had been advised by the Government Office for the West Midlands that they only had to define the “broad extent” of MSAs in the Core Strategy. However, the requirement to publish submission

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1 See paragraph 4.10.7 of the Black Country Minerals Study report

2 The RSS Phase 3 Revision has now been abandoned and the mineral safeguarding elements are to be incorporated into the new single Regional Strategy – see WMRSS Update Phase 3 Special (November 2009).
Proposals Maps for each authority has meant that a detailed MSA boundary has also had to be defined.

2.1.5 Due to time and resource constraints it was not possible to commission further work on refining the boundaries of the mineral resource areas, or to undertake further stakeholder consultation, which was originally planned. In refining the MSAs for the Proposals Maps, the authorities have relied mainly on the Proposed Mineral Safeguarding Areas recommended in the Black Country Minerals Study, the surface coal resource mapping which has subsequently become available from the Coal Authority, and the underlying BGS geological mapping.

Stakeholder Engagement

2.1.6 There has been extensive engagement with stakeholders on the form and extent of MSAs. During the engagement process, stakeholders made the following comments:

- The BGS advised that all mineral resources should be safeguarded unless there is clear evidence that they are not likely to be of economic importance;

- The GO-WM advised that the “broad extent” of MSAs should be shown on the Core Strategy Key Diagram or a supplementary Key Diagram, and that detailed boundaries should be shown on the Proposals Maps for each authority;

- The GO-WM, BGS and Coal Authority have all advised that MSAs should not exclude urban areas if there is evidence that mineral resources are present;

- The Planning Inspectorate (PINS) advised that the broad extent of MSAs should be shown on the Key Diagram or a supplementary Key Diagram. They also advised that if MSA boundaries are not defined in detail on the
Proposals Map accompanying the Core Strategy, the strategy should explain how and where they will be defined;

- The BGS and Coal Authority have both expressed the view that the Core Strategy should include separate MSAs (or at least separate illustrative plans) showing different mineral types;

- Neighbouring MPAs appear to be uncertain about where MSAs should go, although they have accepted the need to define detailed resource areas for each mineral type;

- Some stakeholders commented that the MSAs proposed in the Preferred Options (as recommended in the Black Country Minerals Study) were too detailed and complicated for a Core Strategy;

- Mineral industry representatives felt there should be separate MSAs for each mineral type or commodity and that these should be refined in consultation with them.

**Review of “Best Practice”**

2.1.7 The authorities have reviewed current best practice as set out in the BGS good practice guidance, and as reflected in “sound” minerals core strategies and other emerging core strategies (including those prepared by Cumbria CC, Lancashire CC, Suffolk CC and Coventry City Council).

2.1.8 They have noted that the MPAs concerned have generally defined a single MSA on their Key Diagram and Proposals Map. However, in most cases the mineral resources identified are far less extensive and complicated than they are in the Black Country. The Black Country is probably unique in having extensive and complex mineral resources underlying a major urban area.

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3 A guide to mineral safeguarding in England (2007), BGS
Developing the Black Country MSA

2.1.9 As recommended by the Black Country Minerals Study, the authorities considered possible options for defining MSAs in the Core Strategy. This took into account evidence which became available following the Study, comments made by stakeholders, and best practice in other MPA areas. The options identified were as follows:

1. Define separate MSAs covering each mineral type;

2. Define a single MSA for the Black Country covering all mineral resources.

2.1.10 As the Black Country Minerals Study shows, the Black Country’s geology is very complicated. The Black Country Geodiversity Action Plan has also recognised that relative to its area, the Black Country has the most diverse geology of anywhere in the world. There are mineral resources of one sort or another underlying almost the whole of the area, including the Growth Network where most of the non-mineral development is proposed to take place between now and 2026.

2.1.11 In the light of the advice from PINS, it was decided to prepare a separate Minerals Key Diagram showing MSAs and other minerals proposals. However, having attempted to map separate MSAs for each mineral type, the Black Country authorities came to the conclusion that this did not work, and that the stakeholders who had commented on the complexity of the MSAs proposed in the Preferred Options were right.

2.1.12 The Black Country’s mineral resources are too complex to show separately and with clarity on a Key Diagram or Proposals Map alongside all the other designations that have to be included on these maps. Furthermore, some mineral resources are overlapping others, making it difficult to show everything on a single plan even without the other designations.

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2.1.13 In view of this, the authorities have decided that Option 2 is the most appropriate approach for the Black Country. The broad extent of the MSA is therefore shown on the Minerals Key Diagram and the detailed MSA boundary (based on BGS mineral resource mapping) is shown on the Proposals Maps for each authority. However, the need for separate illustrative maps showing the extent of each mineral resource type or commodity is also accepted.

2.1.14 Options for mapping the mineral commodities were discussed with the BGS and the Coal Authority. The following options for the location of these maps were identified:

1. In an Appendix to the Core Strategy

2. In the Minerals Background Paper 2

3. In a separate LDD

2.1.15 The Coal Authority expressed a clear preference for Option 1. Option 3 was their second choice and Option 2 their least favourite, as it would carry less weight in decision making and is less likely to be referred to when there are multiple policy documents requiring consideration. For publication, three mineral commodity maps (MC1 – MC3) were prepared showing the extent of the different resources, and these are included in Appendix 7 of the publication document.

2.1.16 The Black Country MSA and mineral commodity areas are based largely on BGS mineral resource linework and geological data. This is not ideal as there are caveats about the accuracy and consistency of this data set. However, the good practice guide on mineral safeguarding suggests that this is the best starting point for identifying proven mineral resources and defining MSAs. Policy MIN1 indicates that further refinement of the MSA boundary and mineral commodity areas could be achieved through further technical work and other DPDs. However, the Black Country authorities are currently not committed to

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5 A guide to mineral safeguarding in England (2007), BGS, Executive Summary, page 6
undertaking further technical work on defining mineral safeguarding areas, and may not have sufficient resources to do this.

Replacement of Existing MSAs

2.1.17 The new Black Country MSA will replace the existing MSAs defined in the UDPs for Dudley and Walsall. Table M2 below shows which areas are currently covered by MSAs and how they will be replaced.

M2: Replacement of Existing MSAs by the Core Strategy MSA

<table>
<thead>
<tr>
<th>Existing MSA</th>
<th>UDP</th>
<th>Replaced By</th>
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<tbody>
<tr>
<td>Oak Farm/ Himley</td>
<td>Dudley</td>
<td>Black Country MSA</td>
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<tr>
<td>Kettle</td>
<td>Dudley</td>
<td></td>
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<tr>
<td>Proposal M1.i Branton Hill Lane, Aldridge</td>
<td>Walsall</td>
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<tr>
<td>Proposal M1.ii Birch Lane, Aldridge</td>
<td>Walsall</td>
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<tr>
<td>Proposal M1.iii Stubbers Green Road/ Dumblederry Lane</td>
<td>Walsall</td>
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<td>Proposal M1.iv Highfields South</td>
<td>Walsall</td>
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2.2 Mineral Safeguarding Policy

Black Country Minerals Study – Key Findings and Recommendations

2.2.1 The Black Country Minerals Study recommended that consideration should be given towards how MSAs might guide the development control process and consideration of prior extraction of minerals in non-mineral development. The desirability of securing mineral extraction prior to new permanent non-mineral development is also supported by national policy guidance (see MPS1 paragraph 13 and MPG3 paragraph 22).
2.2.2 The following new evidence has become available since the Study was completed:

- **The Black Country Core Strategy Stage Two Infrastructure & Deliverability Study (November 2009) by Mott MacDonald** has reviewed the evidence for mineral resources within the Regeneration Corridors.

- **The Black Country Core Strategy Sample Sites Viability Study (October 2009) by Mott MacDonald** has considered the viability of a number of “sample sites” across the Black Country, having regard to various factors including geo-environmental issues.

- **Evidence of the feasibility of mineral safeguarding through “prior extraction”** obtained from the Coal Authority. This relates to examples of coal extraction within urban areas, and suggests that “prior extraction” is only likely to be feasible in a limited number of cases.

- **Options for the RSS Phase 3 Revision (June 2009)** included options for a regional safeguarding policy (including thresholds to be applied) and for the safeguarding of mineral-related infrastructure.

2.2.3 As has been noted above, much of the Black Country – including the Growth Network where most development will take place - will be included within the MSA as there are hardly any parts of the area that do not contain mineral resources of one sort or another. The Stage Two Infrastructure and Deliverability Study by Mott MacDonald shows that much the Growth Network is underlain by mineral resources and identifies the types of resources that occur within each Regeneration Corridor.⁶

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⁶ See Table 6 and Figure 11, Black Country Joint Core Strategy: Stage 2 Infrastructure and Deliverability Study Technical Note 6: Ground Risk and Mineral Extraction (November 2006), Mott MacDonald.
2.2.4 The question then arises, to what extent can mineral safeguarding be achieved in an area where a significant amount of non-mineral development is expected to happen, and where there are also significant risks to the viability of projects arising from poor ground conditions, contamination and other geotechnical issues?7

2.2.5 Evidence for the feasibility of safeguarding mineral resources through “prior extraction” is not easy to come by. The current good practice guidance on mineral safeguarding indicates that instances of prior extraction are rare within the urban areas of Staffordshire, suggesting that this is unlikely to be feasible in most urban developments.8 The case studies in the guidance9 are of limited value in understanding the potential for prior extraction, as they are all examples of missed opportunities and no success stories are included.

2.2.6 There are only a few documented cases of prior extraction of minerals in the Black Country, all involving the extraction of coal. The most significant examples are the former Patent Shaft site in Sandwell, and the Reedswood site in Walsall. Both of these developments occurred more than 10 years ago and involved remediation of very large areas of land, with extraction of coal.

2.2.7 To supplement this evidence, the authorities have obtained information from the Coal Authority on incidental coal licence agreements with developers in urban areas in the UK between 1995 and 2008. There are 49 records in total in the schedule provided, on sites ranging from less than 1ha to 28ha. Only three of these records relate to Black Country sites. The Coal Authority has stressed that this reflects only the schemes notified to them, and that there may be other instances where prior extraction has happened without their knowledge.

7 See Black Country Joint Core Strategy Sample Sites Viability Study (October 2009), Mott MacDonald, Section 5
2.2.8 There is some anecdotal evidence that other mineral resources (particularly aggregates) can be extracted in advance of development, but hard evidence for this is lacking. During discussions with mineral operators, they have indicated that this does happen. However, the authorities are not aware of any documented examples of prior extraction of minerals other than coal, and there is no body with responsibility for licensing the extraction of these minerals, which would be able to provide information on this.

2.2.9 The examples provided by the Coal Authority suggest that the size of site is not the only factor influencing the feasibility of prior extraction in advance of redevelopment. However, the limited number of recorded examples of prior extraction of coal in the UK over a 13-14 year period does suggest that it is only likely to be feasible in a minority of cases.

2.2.10 When drafting the safeguarding policy, the authorities also had regard to proposals in the RSS Phase 3 Revision Options for mineral safeguarding at a regional level. The final version of MIN1 reflects the authorities’ responses to the Options consultation on mineral safeguarding issues, and related discussions with WMRA and neighbouring MPAs.

Stakeholder Engagement

2.2.11 The main feedback received from stakeholders on mineral safeguarding issues is summarised below:

- The GO-WM has clarified that the MPS1 requirement not to allocate sites within MSAs only applies to Districts within two-tier areas and does not apply to unitary authorities;

- There appears to be general agreement that non-mineral development proposals within a MSA should be accompanied by evidence demonstrating that mineral resources have not been needlessly sterilised, although there is less certainty about the level of detail of the information or what exclusions should apply;
• Whilst the overriding need for regeneration of urban areas/essential non-mineral development is acknowledged by some stakeholders, others appear to consider that the national policy requirement to safeguard mineral resources outweighs all other material considerations;

• Development management officers have expressed concern about applying mineral safeguarding requirements to planning applications, and have suggested that within the urban areas, a threshold based on sites of 5 – 10ha would be more realistic than a threshold based on “major” developments;

• Network Rail and other stakeholders have identified a limited number of key facilities and potential facilities for transportation of minerals by rail which should be protected in the JCS;

• The Inland Waterways Association has expressed the view that there is potential to transport minerals by canal, but neither British Waterways nor any other stakeholder has identified existing wharves or other specific locations within the Black Country which could be used for this purpose;

• Whilst British Waterways supports the transportation of minerals by canal in principle, they consider it is only likely to be feasible on a small-scale and in a limited number of cases, due to the constraints of the canal network and other potentially conflicting objectives.

2.2.12 Efforts were made to engage with the development industry through a workshop organised by the Core Strategy Employment Group, but no feedback was received on mineral safeguarding. In developing the policy, the authorities were aware of the additional burden that the requirements may place upon applicants for non-mineral developments, when the cost of land remediation is high. They have sought to address this by highlighting the economic potential of exploiting minerals through the development process (see Delivery section), and
by specifically targeting the types of projects where prior extraction of minerals is most likely to be feasible.

**Developing the Mineral Safeguarding Policy**

2.2.13 As recommended by the Black Country Minerals Study, the authorities have considered how the MSA should be applied through the development management process, and to what extent the safeguarding of minerals through prior extraction or other means should be a policy requirement. The following options for a safeguarding policy have been considered:

1. Adopt the same policy requirements and thresholds for non-mineral development throughout the Black Country MSA, or

2. Adopt different policy requirements and thresholds in different parts of the MSA, such as the urban areas, the Green Belt, mineral extraction sites and the Areas of Search.

2.2.14 Some stakeholders appear to have adopted a very rigid interpretation of national policy guidance, and do not accept the need for non-mineral development within a MSA. However, national policy guidance does not preclude non-mineral development within MSAs. The GO-WM advice also indicates that sites can be allocated for non-mineral developments in MSAs within unitary authority areas.

2.2.15 It is accepted that non-mineral development should not be permitted where this would compromise an existing mineral working site or an Area of Search for mineral extraction, in line with national policy guidance (MPS2, paragraph 13). These are the areas which are expected to provide the Black Country’s essential supplies of aggregates and brick clays, so it is very important to safeguard them against incompatible non-mineral development. Policy MIN1 addresses this issue.
2.2.16 It is also agreed that as a general principle mineral safeguarding through “prior extraction” should be encouraged where it is feasible. Indeed, the UDPs for all four authorities already acknowledge the potential for this and contain enabling policies for this. This also has the potential to support other elements of the strategy, for example, the spatial objectives for transport, the environment and waste through use of extracted material on-site and the delivery strategy through assisting site remediation and helping to offset the development costs.

2.2.17 However, an overly rigid approach towards mineral safeguarding is not a reasonable option in the urban areas of the Black Country, given that almost all of the Growth Network is within the MSA and the delivery of the spatial strategy depends on significant amounts of non-mineral development taking place within these areas between now and 2026. It is acknowledged in the good practice guide on mineral safeguarding that the overriding need for other development can be a material consideration.¹⁰

2.2.18 A mineral safeguarding policy cannot ignore the overriding need for non-mineral development within the Growth Network, or the fact that mineral resources in this area are already sterilised. Redevelopment with new non-mineral uses will not make the situation any worse for the mineral resources present, and opportunities to realise the value of these minerals by extracting them are only likely to occur through redevelopment anyway. Nevertheless, the evidence on prior extraction suggests that this will not always be feasible.

2.2.19 As the Sample Sites Viability Study shows, many sites in the Black Country are likely to have abnormal development costs associated with them due to poor ground conditions and/or contamination.¹¹ Although the exploitation of mineral resources has the potential to help offset development costs, this will not always be the case. If minerals are difficult or expensive to extract they could be an additional constraint to development, potentially affecting the viability and deliverability of some projects.


¹¹ See Black Country Joint Core Strategy Sample Sites Viability Study (October 2009), Mott MacDonald, Section 5.
2.2.20 Within the Green Belt there are fewer constraints to mineral working, and greater constraints on non-mineral development, than there are in the urban areas. Only “appropriate” developments are allowed in the Green Belt, which are generally developments which maintain openness and involve only limited amounts of construction, although they can involve significant landscaping and engineering. Non-mineral developments in the Green Belt are therefore more likely to provide opportunities for mineral safeguarding in situ or for prior extraction of minerals as part of the development process.

2.2.21 The good practice guide on mineral safeguarding advises that minor developments and developments unlikely to affect mineral resources should be excluded or exempted.\(^{12}\) This suggests that a safeguarding policy should not be applied indiscriminately to all non-mineral developments within a MSA. Policy thresholds were proposed in the Preferred Options.

2.2.22 As stakeholders have pointed out, if policy thresholds are set at too low a level very many proposals would be caught by the requirements, but as we have seen, prior extraction is unlikely to be feasible in all cases. The benefits of the policy may therefore be outweighed by the amount of abortive work required from both developers and MPAs in demonstrating this.

2.2.23 The evidence points towards the following conclusions:

- As a general principle, the safeguarding of mineral resources through prior extraction should be encouraged on any site where it is feasible;

- Prior extraction of mineral resources should be particularly encouraged where the material will be used on-site, where this can help address “legacy” issues or provide opportunities for geological conservation;

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\(^{12}\) “A guide to mineral safeguarding in England” (2007), BGS – see Figure 5.
• Strict policy requirements should apply to non-mineral developments affecting existing mineral working areas and Areas of Search for mineral extraction;

• The safeguarding policy should not prevent non-mineral development within the Growth Network which is essential to the delivery of the overall spatial strategy;

• Within the Growth Network and other urban areas, very large sites and area regeneration proposals are most likely to offer genuine opportunities for prior extraction of minerals;

• Proposals for non-mineral development in the Green Belt are more likely to offer opportunities for mineral safeguarding than proposals in the urban areas.

2.2.24 In the light of this, the authorities have decided that Option 2 (different policy requirements in different areas) is most appropriate. Policy MIN1 therefore sets different thresholds for the urban and Green Belt areas of the MSA, and does not permit non-mineral development which would compromise existing mineral working sites or Areas of Search. The thresholds for non-mineral development within the MSA are as follows:

- Urban areas – developments on sites of 5ha and over
- Green Belt areas - all “major” developments (as in GPDO).

The threshold for the urban area is not arbitrary and is based on discussions with development management officers and on the threshold used in the Dudley UDP (see Policy M1).

2.2.25 Policy MIN1 therefore requires planning applications for developments falling within the above thresholds to include supporting information justifying the non-mineral development, and to demonstrate that mineral resources will not be
needlessly sterilised. The question of what type of supporting information should be provided has also been discussed with neighbouring authorities, the BGS and development management officers.

2.2.26 So that information provided with an application would be robust enough to base a decision on, it was felt that MPAs should be requesting mineral assessments or geotechnical reports produced by a qualified mineral surveyor or geologist. Applicants could also be advised to consult the Coal Authority where appropriate and to approach the Coal Authority, BGS and MPA geotechnical teams for detailed mineral resource/ geotechnical information for the site. This is the approach recommended in the Justification to Policy MIN1.

2.2.27 In addition to safeguarding mineral resources, MPS1 advises that key mineral infrastructure sites (mineral processing sites as well as existing and potential transport infrastructure) should be safeguarded. The Core Strategy therefore identifies such sites on the Minerals Key Diagram and they are also listed in Appendix 7. Policy MIN1 seeks to safeguard these sites against non-mineral development.

2.2.28 There are some overlaps between safeguarding mineral infrastructure, safeguarding existing/ potential rail freight sites and protecting waste management capacity, as some sites fulfil multiple roles. Where relevant, mineral infrastructure sites have also been identified as rail freight sites and/ or strategic waste management sites (see Policy TRAN3, Policy WM2 and Appendix 6).
3. **Policy MIN2: Production of Aggregate Minerals**

3.1 **Secondary and Recycled Aggregates**

Black Country Minerals Study – Key Findings and Recommendations

3.1.1 The main source of evidence for secondary and recycled aggregates - sometimes referred to as “alternative materials” - in the Black Country (and elsewhere) is national surveys commissioned from Capita Symonds and WRc Ltd by CLG and its predecessors. The Black Country Minerals Study focused mainly on the evidence base for primary mineral resources and did not include any new research into secondary and recycled aggregates production.

3.1.2 The Black Country Minerals Study identified waste as the main source material likely to be available in the Black Country to produce secondary and recycled aggregates, and recommended the following action:

- **Spatial approach** – supply needs to be linked to other spatial issues including regeneration and growth (1.4.1);

- **Existing secondary and recycled aggregate production sites** should be safeguarded and additional sites allocated as part of an integrated network of waste management facilities within the Black Country (1.3.36);

- **The Core Strategy** should include policies requiring new developments (including mineral operations) to minimise waste (1.3.37 – 1.3.39);

- **Site Waste Management Plans (SWMP)** should be required with “major” planning applications to provide a better evidence base for secondary and recycled aggregates (section 6.4).
3.1.3 Since the Study was published, there have been the following developments in policy and evidence:

- **New national and regional guidelines for aggregates have been issued (June 2009).** These cover the period 2005 – 2020 and include increased assumptions about the contribution that alternatives to primary aggregates will make within the region.

- **The RSS Phase 3 Revision Options (June 2009)** considered options for aggregates provision including the potential contribution of secondary and recycled aggregates towards supply;

- **The evidence for secondary aggregates production has been reviewed** as part of the 2008 WMRAWP secondary aggregates survey;

- **Estimates of recycled aggregate production in the Black Country have been produced by the Black Country authorities,** based on the best evidence currently available.

3.1.4 The new national and regional guidelines assume that the West Midlands region will produce around 247 million tonnes of primary land won aggregates per annum between 2005 and 2020. It is assumed that a further 100 million tonnes will come from alternative materials (secondary and recycled aggregates). This is an increase on the assumption in the previous guidelines which assumed that alternatives would contribute around 88 million tonnes per annum.

3.1.5 The RSS Phase 3 Revision Options consultation came out around the same time as the new aggregates guidelines, but used the same assumptions for alternatives as these had not changed since the previous draft of the guidelines. Although the RSS Phase 3 Revision has now been abandoned, the sub-regional

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13 National and Regional Guidelines for Aggregates Provision in England 2005 – 2020 (June 2009), CLG
aggregates apportionments review is continuing and an Interim Policy Statement on this will be produced in March 2010.\textsuperscript{14} It is possible, but unlikely, that this will include revised assumptions on the contribution from alternatives.

3.1.6 Local information on production of alternatives to primary aggregates is limited. Recycled aggregates can be produced either on-site (using mobile plant) or at a recycling facility. There are also other facilities processing secondary aggregates into mineral products. There are not many secondary aggregate processing facilities in the Black Country at the present time. The facilities referred to in the Black Country Minerals Study were based on those identified in previous WMRAWP secondary aggregate surveys.

3.1.7 However, to inform the 2008 WMRAWP secondary aggregate survey, the authorities reviewed the facilities listed in previous reports, and as result of this a number of them have been found not to be producers. The facilities in the Black Country which are believed to be producing alternative materials (secondary or recycled aggregates) are listed in Table M3 below.

\textbf{Table M3: Producers of Alternative Materials (Secondary and Recycled Aggregates) in the Black Country}

<table>
<thead>
<tr>
<th>Core Strategy Ref</th>
<th>Site Name/Location</th>
<th>MPA</th>
<th>Operator Type</th>
<th>Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSWa1 MI1</td>
<td>Bace Groundworks</td>
<td>Walsall</td>
<td>Demolition contractor</td>
<td>Bace Groundworks</td>
</tr>
<tr>
<td>WSWa2 MI2</td>
<td>Branton Hill Quarry</td>
<td>Walsall</td>
<td>Mineral Operator</td>
<td>Bliss Aggregates.com Ltd</td>
</tr>
<tr>
<td>WSWo4 MI3</td>
<td>Dismantling &amp; Engineering Services Ltd</td>
<td>W’ton</td>
<td>Demolition contractor</td>
<td>Dismantling &amp; Engineering Services Ltd</td>
</tr>
<tr>
<td>WSWo5 MI5</td>
<td>Ettingshall Asphalt Plant</td>
<td>W’ton</td>
<td>Mineral operator</td>
<td>Acemix West Midlands (MQP/Tarmac)</td>
</tr>
<tr>
<td>WSS10 MI6</td>
<td>Glenside Recycling</td>
<td>Sandwell</td>
<td>Waste operator</td>
<td>Glenside Recycling</td>
</tr>
<tr>
<td>WSS1 MI7</td>
<td>Network Rail, Bescot Sidings</td>
<td>Sandwell</td>
<td>Transport operator</td>
<td>Network Rail</td>
</tr>
</tbody>
</table>

\textsuperscript{14} See WMRSS Update: Phase 3 Special (November 2009), WMRA
3.1.8 As recommended by the Black Country Minerals Study, these have been identified as key mineral related infrastructure sites to be safeguarded through Policy MIN1. The role of waste in the production of alternatives is also reflected in the Core Strategy waste policies. Facilities recycling CD&EW into aggregates are also identified as strategic waste sites whose capability will be protected under Policy WM2, and locations suitable for the development of new facilities are identified in Policy WM4, although it has not been possible to allocate specific sites.

3.1.9 Recent WMRAWP surveys of secondary aggregate production for 2006 and 2008 have not yielded useful results for the Black Country, as some operators have failed to return survey forms. The Black Country authorities currently have no systems in place for monitoring on-site production of recycled aggregates using mobile plant, and indeed, planning applications do not include this information as a matter of course as there are no requirements in UDPs for them to do so.

3.1.10 This remains as a significant gap in the evidence base, so in accordance with the Black Country Minerals Planning Study recommendations, Policy WM5 requires applications for “major” development to provide supporting information about on-site recycling and usage of recycled materials. Local monitoring systems will also need to be set up to collate the data collected from these applications. The authorities are proposing to put such systems in place during 2009/10 – 2010/11, so that this can be monitored effectively. In the meantime, the evidence base for secondary and recycled aggregates uses the best data available at the moment, which is set out below.

3.1.11 The Black Country Core Strategy Waste Planning Study by Atkins Ltd (Black Country Waste Planning Study) includes analyses of construction, demolition and excavation waste (CD&EW) arisings and recycled aggregates

| WSS2 MI8 | Tarmac, Bescot Sidings | Sandwell | Mineral operator | Tarmac |
| WSS19 MI10 | Wednesbury Asphalt Plant | Sandwell | Mineral operator | MQP/ Tarmac |
production, based on the findings of the national surveys. The data and methodology used in this study has been used by the authorities to produce estimates of recycled aggregates and recycled soil production in the Black Country between 2001 and 2005. These estimates are set out in Table A1a of Appendix 1 and are illustrated by Figure M1 below.

**Figure M1**

![Estimated Recycled Aggregate and Soil Production in the Black Country 2001 - 2005](image)

Source: National Surveys of CD&EW Arisings and Use as Aggregate 2001 – 2005 by Capita Symonds/ WRc Plc; based on assumption that 17.82% of production in the West Midlands region 2001 – 2003 was in the Black Country, and 50.20% of production in Birmingham and the Black Country 2005 was in the Black Country.

3.1.12 Total recycled aggregates production in the Black Country appears to be around 730,000 tonnes per annum and recycled soil production around 100,000 tonnes per annum (a total of around 830,000 tonnes per annum).\(^{15}\) The data shows significant variations between the authorities, with Sandwell having the highest annual production rate (about 300,000 tonnes of recycled aggregate and 40,000 tonnes of recycled soil) and Walsall the lowest (about 120,000 tonnes of recycled aggregate and 17,000 tonnes of recycled soil).

\(^{15}\) These are based on average (mean) production in 2001, 2003 and 2005. The figures quoted in Policy MIN2 Justification differ as they are based on 2005 data – see Appendix 1.
Stakeholder Engagement

3.1.13 Stakeholders commented as follows:

- The Regional Conformity Panel commented that the Core Strategy should more clearly reflect the “hierarchical approach” towards mineral supply in national policy guidance (MPS1, paragraph 1);

- Environmental bodies and members of the public have commented on the need for the Core Strategy to minimise waste, maximise production of secondary and recycled aggregates and minimise extraction of primary aggregates;

- Several stakeholders have commented that the prudent use of mineral resources/production of secondary and recycled aggregates should be addressed through waste policies instead of minerals.

Developing the Policy for Secondary and Recycled Aggregates

3.1.13 Adopting a “hierarchical approach” means firstly reducing the quantity of material used and waste generated, secondly using as much secondary and recycled material as possible, before finally securing the balance of what is needed through primary mineral extraction. As far as possible, the hierarchical approach has been followed in the development of the spatial objectives for minerals and waste (Spatial Objectives 9 and 10) and the minerals and waste policies. This approach is also consistent with Core Strategy Sustainability Objectives 3 and 12.

3.1.14 The Core Strategy discourages needless waste of mineral resources and encourages waste minimisation through mineral safeguarding policy (Policy MIN1) and policy requirements for mineral working (MIN5). Assumptions are also built into the national and regional aggregates guidelines about the quantity of alternatives to primary aggregates which will be produced in each region. Thus,
the overall regional targets for primary aggregates production already take this into account.

3.1.15 Recycling of CD&EW also supports the national waste strategy objective of halving the amount going to landfill by 2012.\textsuperscript{16} The main source of supply of alternatives in the West Midlands appears to be material recycled from CD&EW rather than other materials.\textsuperscript{17} Although some secondary aggregates are produced and processed in the Black Country and we have information on production at a couple of sites, we are unable to estimate total secondary aggregates production across the Black Country at present. Stakeholders are therefore right to say that this is predominantly a waste and resource management issue, even though the end product is aggregate minerals.

3.1.16 Accordingly, the authorities have sought to minimise waste and encourage production and use of alternatives through the Core Strategy waste policies, in particular WM4 which identifies suitable locations for recycling facilities, and WM5 which encourages waste reduction, on-site recycling of CD&EW into aggregates and the use of recycled construction materials. Policy WM5 replaces Core Policy Areas 17 and 24 proposed in the Preferred Options.

3.1.17 However, it is also accepted that the policy on aggregates should highlight the contribution that alternative materials make towards overall supply. This has been addressed in Policy MIN2. In the case of the Black Country the contribution of alternatives is likely to be very significant. The “weighted shares” used in regional technical work on CD&EW arisings and in the estimates in this report, are based projected housing growth rates. They assume that the Black Country is producing a high proportion (nearly 18\%) of the region’s recycled aggregate.

3.1.18 When the estimated average annual production rate for recycled aggregate (around 730,000 tonnes per annum) is compared to average annual production (sales) of primary aggregates (around 50,000 tonnes per annum), it

\textsuperscript{16} Waste Strategy for England 2007 (May 2007), Defra, Chapter 4, 73 – 78 and Chapter 8, 18

\textsuperscript{17} Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005 (2007), Capita Symonds /WRc for CLG
also suggests that more than 90% of the aggregates produced in the Black Country is from alternative sources. The national survey results suggest that recycling of this material is already happening on a significant scale. This is also borne out by research by WRAP which suggests that in the West Midlands Metropolitan area we are close to achieving maximum recovery of useful material from secondary and recycled sources.\footnote{The Sustainable Use of Resources for the Production of Aggregates in England (2006), WRAP}

3.1.19 However, there are caveats attached to the data. The estimates of recycled aggregates and soils for the Black Country as a whole and for the individual authorities can only be regarded as very approximate, as they are based on “weighted shares” of estimated production in the region in 2001 and 2003, and estimated production in the Birmingham and the Black Country sub-region in 2005. The weightings are the same as those used in a regional waste requirements study to calculate construction, demolition and excavation waste (CD&EW) arisings.\footnote{West Midlands Waste Facilities – Phase 2: Future Capacity Requirements (2004), Shropshire County Council for WMRA}

3.1.20 The authorities feel that it would be unsafe to set targets for production of secondary and recycled aggregates based on this data as although it is the best available, it is not very robust. The Justification to Policy MIN2 explains that production targets will be developed once locally obtained data becomes available through future improvements to monitoring.

3.1.21 Options for the location of secondary and recycled aggregates production facilities were considered through the Black Country Waste Planning Study and as part of the development of the waste policies, as these are also CD&EW processing sites and have the same characteristics/locational requirements. As is mentioned above, this is addressed in waste policy WM4 which identifies suitable locations for recycling facilities.
3.2 Primary Land Won Aggregates

Black Country Minerals Study – Key Findings and Recommendations

3.2.1 The main sources of evidence for primary aggregates supply (permitted reserves), production (sales) and potential future supplies are the Survey of Mineral Resources in the Black Country (March 2007) by Scott Wilson, the Black Country Minerals Planning Study and the most recent annual surveys by the West Midlands Regional Aggregates Working Party (WMRAWP).

3.2.2 With regard to primary aggregates, the Black Country Minerals Study found that permitted reserves of sand and gravel in the Black Country were not sufficient to demonstrate a 7-year landbank to 2026 even assuming that the Black Country was only expected to contribute a 10% share of the sub-regional apportionment. The Study recommended the following action:

- Spatial approach – supply needs to be linked to other spatial issues including regeneration and growth (1.4.1);

- Further evidence should be sought from operators on the amounts of sand and gravel which could be exploited within the lifetime of the plan (4.14.2);

- In the absence of a landbank of permitted reserves, the JCS should identify preferred areas or areas of search where mineral working might take place (1.3.14);

- Preferred areas and areas of search for future mineral working should be informed by the proposed MSAs and constraints mapping undertaken as part of the study (5.6.2);

- Provision should also be made for “borrow pits” related to specific construction or development projects (4.13.49).
3.2.3 Since the Black Country Minerals Study was published, there have been the following developments in policy and evidence:

- **New national and regional guidelines for aggregates have been issued (June 2009).** These cover the period 2005 – 2020 and have increased the overall requirement for primary aggregates production in the West Midlands region;

- **The RSS Phase 3 Revision (June 2009) considered options for aggregates provision including sub-regional apportionments and possible changes to the sub-regional areas. Although this has now been abandoned, the sub-regional aggregates apportionment review is continuing;**

- **WMRAWP has carried out surveys of aggregates sales and permitted reserves in 2007 and 2008 (see Appendix 1) and Walsall Council has used this to update the evidence base for primary aggregates.**

3.2.4 Following the Black Country Minerals Study we now have more up-to-date information on production and permitted reserves. However, the overall level of activity has not changed. There are still only two active sand and gravel quarries in the Black Country, both in Walsall:

- Aldridge Quarry (operated by Cemex)
- Branton Hill Quarry (operated by Bliss Aggregates.com)

There is also still only one current application for sand and gravel working, relating to an extension to Branton Hill Quarry.

3.2.5 Nationally, the aggregates industry is currently dominated by a limited number of large companies, and as with many other industries there has been recent consolidation.\(^{20}\) The main aggregate companies represented in the Black

Country are Cemex (see above) and Tarmac, who have a head office at Ettingshall in Wolverhampton and a number of processing facilities. Tarmac currently has no quarries in the Black Country but operates Shire Oak Quarry, just outside the Walsall Borough boundary in Staffordshire.

3.2.6 Although they are used as raw materials for building and engineering, the main use of primary aggregates is to create other value-added products such as concrete, cement, mortar and coated products (roadstone and asphalt). There are a number of facilities in the Black Country processing aggregates to make these products and they have been identified as key mineral infrastructure sites to be safeguarded under Policy MIN1 (see Section 2.1 above). Although new-build construction projects are expected to use more than half of the virgin aggregate materials produced in the region, refurbishments and extensions are also expected to use a significant proportion.

Aggregates Guidelines and Sub-Regional Apportionments

3.2.7 The national and regional aggregates guidelines set the framework for planning future aggregates supply and include targets or “guidelines” for primary aggregate production for each region. These targets are then expected to be developed into sub-regional apportionments (annual supply targets), to be incorporated in the RSS by regional planning bodies assisted by Regional Aggregates Working Parties (RAWPs). The national and regional aggregates guidelines were revised in June 2008. The sub-regional aggregates apportionments for the West Midlands Region are now being reviewed in the light of this (see paragraphs 3.2.15 – 3.2.20 and Table M5 below).

3.2.8 However, this review has come too late for the Core Strategy, since at the time of Submission revised sub-regional apportionments had not been published. The Core Strategy has therefore been prepared in the context of the existing

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21 Mineral Planning Factsheet: Construction Aggregates (February 2007), BGS

22 In developing options for the sub-regional aggregates apportionments it was assumed that around 60% of aggregates produced in the West Midlands region would be used in future new-build housing/ infrastructure development, and around 40% would be used in refurbishment/ redevelopment. This is based on information supplied by the industry members of the WMRAWP.
sub-regional aggregates apportionments set out in Policy M2 of the current RSS (January 2008). The Black Country does not have any sub-regional apportionments of its own as it is part of the West Midlands County sub-region. The current sub-regional apportionment requires the West Midlands County to produce **0.506 million tonnes of sand and gravel per annum** up to 2016.

3.2.9 There is currently only a sub-regional apportionment for sands and gravels for the West Midlands County. The apportionment for crushed rock ended in 2005, and the last quarry in the sub-region which was producing this material (in Sandwell) ceased production shortly after that. This situation is not expected to change as a result of the current review of sub-regional apportionments, as none of the options under consideration include any sub-regional apportionment for crushed rock for the West Midlands County.

**Aggregates Production 1998 - 2007**

3.2.10 Permitted reserves and sales of aggregates are surveyed annually by WMRAWP, and the latest surveys cover the calendar years 2007 and 2008 (the latter is not yet published), post-dating the information in the Scott Wilson study and the Black Country Minerals Planning Study. Figure M2 below shows details of sales (production) of aggregates in the West Midlands County Area between 1998 and 2007, compared to the sub-regional apportionments (see also Table A1b in Appendix 1). The apportionments changed in 2002.

3.2.11 Production in the Black Country accounted for all of the crushed rock sales in the West Midlands County Area up to 2005, and for around 10% of the sand and gravel sales 1998 - 2007. Sales of sands and gravels in the West Midlands County area as a whole have been slightly above the apportionment (annual production target) set out in Policy M2 of the RSS, which is 0.506 million tonnes per annum.
3.2.12 In the West Midlands County area only two mineral planning authorities (MPAs) are contributing to sand and gravel supplies: Solihull and Walsall. The “share” of the apportionment assumed to be provided by each authority (based on recent production rates) is summarised in Table M4 below.

**Table M4: West Midlands County Area Sub-Regional Sand and Gravel Apportionment – Assumed Provision to 2011**

<table>
<thead>
<tr>
<th>Solihull UDP</th>
<th>Walsall UDP</th>
<th>Total West Midlands County Area Apportionment</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Tonnes per annum</td>
<td>%</td>
</tr>
<tr>
<td>90</td>
<td>455,400</td>
<td>10</td>
</tr>
</tbody>
</table>


3.2.13 Assumptions are based on past rates of sale and the provision made in the adopted UDPs, which cover the period up to 2011. However, there are concerns that Solihull and Walsall will not be able to sustain production of sand and gravel at current rates into the long-term (see paragraph 3.2.17 below). As Figure 3 below shows, permitted reserves have been falling since 1998 (see also...
Table A1c in Appendix 1), although there was a slight increase in 2007 as a result of a new permission to extend one of the quarries in Solihull.

Figure M3


3.2.14 It is only possible to give a broad estimate of permitted sand and gravel reserves in Walsall in this paper, as there are only two quarries in the area, and more detailed information would be regarded by the operators as confidential. The provisional results of the latest (2008) WMRAWP survey suggest that at December 2008, permitted reserves of sand and gravel in Walsall were just under 250,000 tonnes. Whilst this is very low, it is not quite as low as the Scott Wilson survey suggests. Walsall Council considers that the latest WMRAWP surveys provide the best and most up-to-date information on permitted reserves, and that the above estimate is preferable to that given in the Scott Wilson survey.

Review of Sub-Regional Aggregates Apportionments

3.2.15 We cannot assume that the West Midlands County sand and gravel apportionment will remain the same as it is now, because the sub-regional apportionments are under review. The West Midlands Regional Assembly (WMRA) will shortly produce an Interim Policy Statement on Sub-Regional
Aggregates Apportionments, which will have the same status as the RSS Preferred Option. This will be published at the end of March 2010, together with Policy Recommendations on Mineral Safeguarding, Construction Aggregates and Future Brick Clay Provision, which will have less weight.

3.2.16 The review has taken into account comments received during the previous consultation on the RSS Phase 3 Revision Options. During this consultation some stakeholders expressed concern about the imbalance between supply and demand across the region. Currently, the West Midlands County is the main user of aggregate minerals but contributes very little in the way of primary aggregates (only 5% of the regional sand and gravel guideline). The bulk of the regional sand and gravel guideline - around 65% - is met by the Staffordshire sub-region, which comprises Staffordshire County and the city of Stoke-on-Trent.

3.2.17 In reviewing the apportionments, the potential for a more even distribution of sand and gravel supply across the region has been an important consideration. However, minerals can only be worked where they are found, and where working is feasible and economically viable. It is therefore unlikely that the West Midlands County sub-region can significantly increase its contribution towards regional sand and gravel requirements, and the contribution made by the Black Country (i.e. Walsall) is likely to remain very limited. Comments to this effect were submitted at the RSS Phase 3 Revision Options stage (August 2009) by the West Midlands Planning & Transportation Sub-Committee (on behalf of the West Midlands County authorities), and by Walsall Council. No evidence has since come to light to contradict this view.

3.2.18 The review of the sub-regional aggregates apportionments has involved “technical” consultation with WMRAWP members, including mineral planning authorities, on a number of options. Each option has been subjected to a sustainability appraisal and Habitats Regulations Assessment. The evidence underpinning the Black Country Core Strategy minerals policy has informed the review. The Black Country authorities have provided technical information (including an earlier version of this Background Paper) to the WMRAWP and to Land Use Consultants who have been preparing the options on behalf of WMRA.
The review process to date and the options considered are summarised in an interim report to the West Midlands Regional Assembly Regional Planning and Environment Executive Board.23

3.2.19 At the time of writing the WMRAWP had still not made its final recommendations to WMRA on the preferred options. Following a technical consultation during December 2009 and January 2010, and a subsequent meeting of the WMRAWP on 4 February 2010, three potential options were left “on the table” for consideration. These options would all result in slightly higher sub-regional sand and gravel apportionments for the West Midlands County. Table M5 below summarises what the apportionment would be under each option.

Table M5: West Midlands County Sand and Gravel Apportionment Review - Comparison of Remaining WMRAWP and Land Use Consultants Options @ February 2010

<table>
<thead>
<tr>
<th>West Midlands County Requirement</th>
<th>Existing Apportionment</th>
<th>RAWP Option 1c*</th>
<th>LUC Option F</th>
<th>LUC Option Refined F**</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Regional Guideline</td>
<td>5.00%</td>
<td>5.33%</td>
<td>5.39%</td>
<td>5.00% (2005-10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.72% (2011-12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.61% (2013-15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.39% (2016-20)</td>
</tr>
<tr>
<td>Total Apportionment 2005 – 2020 (over 16 years)</td>
<td>8.25 MT</td>
<td>8.80 MT</td>
<td>8.80 MT</td>
<td>9.35 MT</td>
</tr>
<tr>
<td>Annual Production Requirement</td>
<td>0.506 MT</td>
<td>0.550 MT</td>
<td>0.550 MT</td>
<td>0.506 MT (2005-10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.654 MT (2011-12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.642 MT (2013-15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.616 MT (2016-20)</td>
</tr>
</tbody>
</table>

Source: Report to West Midlands Regional Assembly RPEE Board, 23.02.10, Tables 1, 3 and 5

* WMRAWP has agreed that this Option will be recommended to WMRA
** This option involves phasing

23 West Midlands Regional Assembly - Regional Planning and Environment Executive Meeting 23 February 2010 - Agenda Item 5b: Interim Policy Statement – Sub-Regional Apportionment of Aggregates
3.2.20 It should be noted that, whereas the annual production target under Options 1c and F would remain the same throughout the guideline period (2005 – 2020), Refined F involves phasing. Under this option, the annual production target would increase from 0.506 million tonnes in the baseline year 2005 to 0.616 million tonnes by 2020.

**Stakeholder Engagement**

3.2.21 Stakeholders have made the following comments on primary aggregates production and supply:

- The GO-WM, WMRA (Regional Conformity Panel) and several neighbouring MPAs have commented that the Core Strategy should contribute appropriately towards sub-regional apportionments;

- AWM has commented that it is more sustainable to use local materials where possible;

- A number of stakeholders have commented that the Core Strategy should set targets for primary aggregates production;

- Mineral industry representatives expressed concern that there should be greater certainty in the Core Strategy about where mineral extraction can take place;

- A potential site allocation for sand and gravel extraction has been put forward on land adjacent to Aldridge Quarry;

- Stakeholders have also commented on the need to clarify where “borrow pits” may be located;

- Environmental bodies have expressed concern about the impact of sand and gravel extraction on environmentally sensitive areas and on how potential detrimental impacts can be mitigated;
• Councillors representing Aldridge and Walsall Wood have objected to further quarrying and landfilling in the Aldridge and Stonnall areas of Walsall, due to impacts on the amenity of local communities and the local highway network.

Developing the Policy for Primary Aggregate Supply

*Primary Aggregate Production/ Supplies*

3.2.22 Adequate and steady supplies of aggregate minerals will need to be provided in the Black Country in accordance with national policy guidance (MPS1, paragraph 1), and to support the levels of development proposed within the Growth Network.

3.2.23 The Black Country’s aggregates supply requirements are expected to be met through a combination of primary, secondary and recycled sources, with the highest proportion being met from recycling of CD&EW and other waste (see Section 3.1 above). However, Walsall also has viable primary sand and gravel resources which will contribute towards both regional requirements and local needs, albeit on a limited scale. **There is a Proposed Change (February 2010) to Policy MIN2 to clarify that the Black Country is committed towards contributing to the sub-regional apportionment, in response to a comment by the GO-WM at the Publication stage. Small contributions towards primary aggregates supply could also be made through prior extraction (see MIN1) and “borrow pits.”**

3.2.24 Although a significant amount of aggregate minerals are expected to be produced in the Black Country up to 2026 (mostly recycled), there will be importation and exportation of minerals and mineral products to and from adjoining areas, although these bulky materials do not tend to travel long distances.24 The Core Strategy needs to address the amenity, environmental and transport impacts of importing and exporting aggregate minerals and related

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24 The evidence used to develop options for the sub-regional aggregates apportionments assumes that materials are unlikely to travel more than 38 km. This is based on information provided by WMRAWP industry members.
products, by encouraging haulage by rail or inland waterway where feasible, and where it is not feasible, by steering haulage routes onto major roads rather than through residential areas. Policy MIN5 addresses this issue and Policy MIN1 identifies existing and potential rail freight sites.

3.2.25 National policy guidance requires mineral policies to be based on the best and most up-to-date evidence available (MPS1, paragraph 12). This includes evidence on past rates of production and current permitted reserves (as outlined above), as well as evidence of the resources likely to come forward in the foreseeable future, and where other viable resources might exist, as indicated by the Black Country Minerals Study and engagement with relevant stakeholders. Table A1d in Appendix 1 summarises existing permitted reserves of sand and gravel in the Black Country and other potential resources which could contribute towards future supplies.

3.2.26 Mineral resources can only be worked where they are found, so the options for identifying potential new sand and gravel extraction are limited to the areas where they occur. The Black Country Minerals Study shows that most of the Black Country’s sand and gravel resources (bedrock) are sterilised by urban development, but significant resources remain on the eastern fringes of Walsall. The extent of the resource is shown on Map MC1 in Appendix 7 of the Core Strategy. However, we cannot assume that all of these resources can be worked, as this depends on the quality of the resources and the feasibility of working them, taking into account any environmental and other constraints that may be present.

3.2.27 Engagement with the aggregates industry has been through a combination of events, such as the Minerals & Waste event in March 2007, one-to-one discussions with some operators, and feedback from formal consultation on the Core Strategy, for example, the QPA (now the MPA) and Tarmac commented on the Preferred Options. A proposal for sand and gravel working near to Aldridge Quarry was put forward by Cemex. Walsall Council has also been engaging with Bliss Aggregates concerning their recent/ current planning applications.
3.2.28 The only specific sand and gravel extraction proposals to come out of the consultation and engagement process are proposals for an extension to Branton Hill Quarry (a current application) and for working areas in the vicinity of Aldridge Quarry. These proposals lie within the existing MSAs (Proposals M1i and M1ii) defined in the Walsall UDP, and these areas were suggested as potential working areas in the Preferred Options. A description of the sites and the key issues and constraints affecting them is provided in Table A1e of Appendix 1 (for constraints see Figure 005 of Black Country Minerals Study and Appendix 3 of Core Strategy Sustainability Appraisal).

3.2.29 As both proposals would involve the same companies who are operating the existing quarries and would effectively “take over” from the existing quarries when they are worked out, they are unlikely to increase production rates significantly over and above existing levels of around 50,000 – 60,000 tonnes per annum. Policy MIN2 therefore proposes to maintain production at current levels, with a production target of 50,000 tonnes of sand and gravel per annum. Table M6 below summarises the resources that need to be identified in Walsall to demonstrate a minimum 7-year landbank as required by national policy guidance (MPS1, Appendix 1) assuming a production target of 50,000 tonnes per annum.

<table>
<thead>
<tr>
<th>Annual Production Target (tonnes)</th>
<th>Residual Requirement 2009 – 2026 (Years)</th>
<th>Requirement Beyond 2026 (Years)</th>
<th>Total Requirement to Maintain Landbank (Years)</th>
<th>Total Supply Requirement to Maintain 7-Year Rolling Landbank (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,000</td>
<td>17</td>
<td>7</td>
<td>24</td>
<td>1,200,000</td>
</tr>
</tbody>
</table>

3.2.30 The locations identified in the Preferred Options for future sand and gravel working are Aldridge and Stonnall. These areas have been the main focus for sand and gravel working in recent years, and there is no evidence at the moment that working in other parts of Walsall is viable. No representations have

25 Note: Figure B-1 of the Black Country Strategic Flood Risk Assessment (SFRA) (February 2009), Jacobs supersedes the areas of flood risk shown on Figure 005 of the Black Country Minerals Study.
been received from the industry or from landowners seeking to extract sand and gravel in other parts of the resource area.

3.2.31 However, other stakeholders have expressed concern about further sand and gravel working in Aldridge and Stonnall. In response to this, the Ward Members for Aldridge and Walsall Wood were briefed on the mineral policy issues that the Core Strategy must address, such as the requirement to maintain supplies of aggregate minerals. Their concerns have been reflected in policies MIN2 and MIN5, which should ensure that any future mineral working in the area addresses water quality issues, impacts on the local highway network, visual effects and other potential impacts on local communities.

3.2.32 Even though there are understandable local concerns about working in these areas, the evidence clearly points towards Aldridge and Stonnall as the areas most likely to meet requirements for primary land-won sand and gravel in the foreseeable future. In the absence of any other proposals in the pipeline, Policy WM2 identifies the following areas of search, based on the areas where working is proposed:

- MA1: Birch Lane (Walsall)
- MA3: Branton Hill Lane (Walsall)

3.2.33 Following the Preferred Options, Walsall Council officers considered defining a wider area of search, including land between Aldridge Quarry and Branton Hill Quarry. However, no formal representations were made in support of working in this area through the consultation and engagement process. It was considered inappropriate to include this area within an area of search, in the absence of any evidence on the extent and quality of the resources, or that the resources could be worked economically, and without unacceptable impacts on neighbouring uses or the environment.

3.2.34 The identified areas of search essentially carry forward the policy and proposals of the adopted Walsall UDP, as they are based on MSAs surrounding the Birch Lane and Branton Hill quarries identified in the UDP (Proposals M1.i
and M1.ii). As is noted above they have already been put forward by operators as potential working areas, and are therefore believed to contain viable resources.

3.2.35 The evidence provided by operators indicates that these areas contain around 4 million tonnes of sand and gravel (Table A1d of Appendix 1), which is more than sufficient to maintain a landbank up to and beyond 2026. It may also be enough to allow an increase in production beyond the target rate (the current application at Branton Hill Lane suggests this), although this cannot be guaranteed and will depend on the operators. The level of sand and gravel sales and permitted reserves will be kept under review. If future monitoring shows that production in Walsall is increasing or decreasing, or that there is potential to increase production without unacceptable harm to other spatial planning objectives, the target can be revised accordingly.

3.2.36 Although the areas of search contain sufficient resources to maintain a landbank, some flexibility is needed, as they are not without constraints so there is a potential risk to delivery. If permitted reserves within the areas of search do not materialise within a reasonable timescale, the landbank will continue to decline and the production target – modest though it is - will not be met. Policy MIN2 therefore allows proposals to be brought forward in suitable locations outside the areas of search if there is evidence of a significant deficiency in supply. To minimise harm to the environment, local communities and the highway network, all such proposals will be expected to comply with the guidance in Policy MIN5.

3.2.37 At several stages in the process, WMRA and neighbouring mineral planning authorities have questioned the adequacy of the target and whether it represents an appropriate contribution towards the West Midlands County sub-regional apportionment, bearing in mind this is likely to change as a result of the current review. There is a Proposed Change (February 2010) to the Policy Justification to MIN2, to acknowledge that the sub-regional apportionment may change, in response to comments by WMRA, Staffordshire County Council, Warwickshire County Council and Solihull MBC at the Publication stage.
3.2.38 When the Core Strategy was published (November 2009) it was not possible to predict how the sub-regional apportionment might change as a result of the current review. We now know that the apportionments in the Interim Policy Statement are likely to be based on one of the three options indicated in Table M5 above. However, even if the sub-regional apportionment is increased slightly in line with these options, this does not mean that the Black Country can increase its contribution. The evidence suggests otherwise.

_Borrow Pits_

3.2.39 The Black Country Minerals Study highlighted the possible need for “borrow pits” linked to specific engineering projects, and the Preferred Options proposed that the Core Strategy should include an enabling policy. In the light of comments received at the Preferred Options stage, there was a need to give clear guidance on where borrow pits could be located.

3.2.40 The main purpose of “borrow pits” is to source material for specific development and engineering projects. It would therefore be unreasonable to them to the areas of search for sand and gravel, because they may be required to source materials other than sand and gravel such as soils, and because they would be small-scale, temporary operations which could in theory be accommodated anywhere in the Black Country with suitable resources. The approach towards borrow pits and the circumstances where they will be permitted has been clarified in Policy MIN2.
4. Policy MIN3: Maintaining Supplies of Brick Clay

Black Country Minerals Study – Key Findings and Recommendations

4.1 The Black Country Minerals Study confirmed that the approach adopted in the Survey of Mineral Resources in the Black Country (March 2007) by Scott Wilson, which aggregated supply data to MPA level, was not appropriate and that supply should be related to individual plants in accordance with national policy guidance (MPS1, Annex 2).

4.2 The Study identified significant brick clay resources in the Black Country, the most important of which are clays from the Etruria Formation. Although other clay resources are present in the area, with the exception of fireclay, these are not regarded as having potential economic importance for brick manufacture. Etruria Marl and fireclay are both identified as important, nationally scarce resources, used for brick manufacture. The main clay resource areas not sterilised by urban development are in Dudley and Walsall (see Map MC2 and MC3 in Appendix 7 of the Core Strategy). 26

4.3 The role of locally made bricks in shaping local character and distinctiveness is also highlighted. 27 In the Black Country, buildings and structures made of brick are an important and distinctive feature of local character (see Policy ENV2). Many of these bricks were made from local clays, as is reflected in the colours, which are mainly red or orange. Blue “Staffordshire” or engineering bricks (created by reducing the iron present in red clays) were also widely used, particularly in bridges and walls, and were also used as paving bricks. Etruria Formation clays are particularly suited to the production of blue bricks as they contain a significant proportion of iron. In some important

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26 Note: the brick clay resources shown on Map MC2 include clays from the Keele and Enville Formations as well as clays from the Etruria Formation. Fireclay resources are not shown on Map MC2. Map MC3 shows the extent of coal resources, which include seams of fireclay.

27 The Role of Brick in the Environment (November 2001), Michael Hammett for Brick Development Association
buildings, “polychromatic” (different coloured) bricks were used to create decorative effects.  

4.4 The Study found that current supplies of Etruria Formation clays and fireclay are insufficient to provide a 25-year supply to each brick manufacturing plant in the Black Country, and that in some cases the supply situation was very serious. It recommended the following action:

- Spatial approach – supply should be linked to other spatial issues including regeneration and growth and there is a need to establish linkages between strategy for brick clay and planned growth and regeneration (1.3.23, 1.4.1);

- Where possible the Core Strategy should plan to maintain a stockpile of reserves which will allow 25 years production at each brick making plant (1.3.23);

- Consider the allocation of areas of search or preferred areas for future mineral working which should be informed by the proposed MSAs and constraints mapping undertaken as part of the study (1.3.23, 5.6.2);

- Consider the location of suitable areas for stockpiling material which is well related to where it will be processed (1.3.23);

- Address inter-relationship between coal extraction and supply of fireclay (1.3.27).

Baseline Evidence - Update

4.5 Following the Study the following developments have occurred:

• The RSS Phase 3 Revision Options (June 2009) considered options for future brick clay provision and cross-boundary supply issues;

• Further engagement with brick manufacturers on supply issues at individual sites in Dudley and Walsall – this has provided opportunities to update the evidence base for supply.

4.6 The Black Country Core Strategy Stage Two Infrastructure and Deliverability Study (November 2009) by Mott MacDonald has not identified any concerns about the supply of bricks or identified this as a barrier to delivery of the strategy. Nationally, the demand for bricks is still falling and brick production has declined since 2001, but in the West Midlands region production has remained reasonably buoyant and the region produces more bricks than any other region in England (around 22% of total UK production). Discussions with local operators suggest that there may be an over-supply of bricks, and no need to cater for any increase in production.

4.7 The main use of bricks (around 60%) is in house-building, the remainder being mainly used in commercial buildings and in repair and maintenance. Most bricks produced today are “facing” bricks, as the inner leaves of cavity walls tend to be made of concrete blocks, and internal walls tend to be made of blocks or timber and plasterboard, reducing the amount of bricks required. Higher density housing schemes, which use less bricks per unit, and the trend towards using alternative materials, have contributed towards the continued decline in demand for bricks. The evidence on the “sustainability” of new bricks does not appear to be conclusive. Some sources suggest that new bricks are environmentally sustainable whereas others suggest that refurbishing old buildings is better.

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30 Minerals Planning Factsheet: Brick Clay (February 2007), BGS

31 Brick – The Case for Sustainability (undated), BDA, and New Tricks with Old Bricks (2008), EHA & BSHF
4.8 The brick market is currently dominated by a few large players and there has been recent consolidation in the industry.\textsuperscript{32} The main brick manufacturers represented in the Black Country are Ibstock and Wienerberger. There is also an independent company in Dudley (Hinton, Perry & Davenhill) which makes both bricks and tiles. All of the main Black Country brickworks are based in or adjacent to the main sources of supply of Etruria Formation clays, in Pensnett and Kingswinford in Dudley and in Stubbers Green in Walsall.

4.9 Ibstock have two operational plants in Walsall (Atlas and Aldridge Works) and Wienerberger have one (Sandown Works). An independent manufacturer, Hinton Perry and Davenhill, has a plant in Dudley (Dreadnought Works) making both bricks and tiles. There is also a small manufacturer of special bricks based in Sandwell (Cradley Special Brick) which relies on imported clays, and a supplier of pot clay blends based in Walsall (Swan Works).

4.10 Two brick manufacturing plants, Stourbridge Works in Dudley belonging to Ibstock and Sedgley Works (just outside the boundary in South Staffordshire) belonging to Wienerberger, have been “mothballed” as a result of the economic recession, and their future is uncertain. However, they have been included in the supply assessment, because they could re-open again once the recession is over and the demand for bricks picks up again.

4.11 Most brickworks use a variety of types of clays which are blended to create bricks of different colours and textures. There are two basic colours of clay used in brick manufacture, red clays (e.g. Etruria Marl, Mercia mudstones) and buff clays (fireclays). Currently, the only type of clay being produced in the Black Country is Etruria Marl. This means that all of the other clays used by Black Country brickworks have to be imported. Some works are also importing Etruria Marl to supplement local supplies.

4.12 Operators have confirmed the importance of Etruria Marl to their business, as it is a high quality but nationally scarce material. Some works are now experiencing deficiencies in supply as permitted reserves in some Black Country

\textsuperscript{32} Wienerberger Finance Service BV / Baggeridge Brick plc: Final Report (10.05.07), Competition Commission, Appendix C
clay pits are running low. The number of years’ supply at each works can be calculated from annual consumption rates and from estimates of the amount of permitted reserves of clay remaining, where known.

4.13 Table A1a of Appendix 2 summarises the current supply of Etruria Marl to each works at April 2009, compared to the Core Strategy plan period (i.e. 17 years 2010 - 2026). For reasons of commercial confidentiality, some information has been excluded. The national policy requirement is for a 25-year supply (see MPS1, Annex 2, paragraph 3.4). This would cover the period 2010 – 2035, extending beyond the plan period. However, the lack of a complete data set and non-disclosure of some information does not make it easy to plan for future supplies.

4.14 The Black Country Minerals Study confirms that the Black Country Coal Measures include seams of fireclay (see Map MC3 in Appendix 7 of the Core Strategy), which is also an important raw material for brick manufacture. In the past, fireclay was used for a variety of purposes including the manufacture of refractories to line kilns and furnaces (this was once an important industry in the Black Country), but it is now mainly used to make high quality facing bricks. In the past bricks made from fireclay were occasionally used as a construction material, and the Black Country Minerals Study notes that this may contribute towards local distinctiveness.

4.15 Some Black Country brickworks use fireclay. The last site in the Black Country to produce fireclay (Birch Coppice in Walsall) ceased operating several years ago. There is a stockpile of fireclay from this site which is owned and managed by a local supplier of pottery clay blends, Potters Clay & Coal Company Ltd. This is used by the company to create pottery clay blends and also for other uses, including export. However, the main sources of fireclay for use in brick manufacture are the strategic stockpiles or “virtual quarries” at

33 Mineral Planning Factsheet: Fireclay (October 2006), BGS

34 A notable example of this is the Harris & Pearson Building at Silver End in Dudley, the former offices of a company which used to produce refractories. See website: http://www.harrisandpearson.info/
Caughley (Telford & Wrekin), Kingsbury (Warwickshire) and Donnington (Leicestershire).

4.16 Some works also use other red clays which do not occur within the Black Country, and these also have to be imported from outside the area. Manufacturers have confirmed that red clays which do not occur locally (e.g. from Mercia Mudstone) are “widely available” in other parts of the West Midlands region.

4.17 As fireclay is only likely to be extracted in the Black Country as a by-product of surface coal working, stockpiling has been suggested by the industry as a means of providing long-term supplies of fireclay to Black Country brick works. This would therefore need to be addressed in both clay and coal policies, as the Black Country Minerals Study recommends.

4.19 The need to allow for importation of clays has also been identified as an important issue as most brick works use a variety of clays and not all of them occur locally/ are produced locally at the present time. They also use aggregates as well as clays. All works import at least some material, although conditions on planning permissions restrict the amount of material that some of them can import. Table A2a of Appendix 2 summarises the proportion of imported material permitted at each works.

Stakeholder Engagement

4.20 The following comments have been received from stakeholders in relation to supply of brick clays:

- The Regional Conformity Panel commented that the JCS should more clearly reflect the “hierarchical approach” towards mineral supply advocated in national policy guidance (MPS1, paragraph 1);
• The British Ceramics Confederation has commented that the 25-year supply requirement relates to each existing or proposed manufacturing plant, not to aggregated supplies across the MPA area;

• The Regional Conformity Panel and neighbouring authorities have sought clarification on which brickworks will be supplied and on how cross-boundary supply issues (such as importation of materials required for blending) will be addressed;

• Stakeholders have sought clarification on how supply deficiencies will be addressed;

• The Regional Conformity Panel has commented on the need to identify suitable locations for “strategic stockpiles” – this has also been debated with neighbouring authorities;

• Environmental bodies have expressed concern about the impact of clay extraction on environmentally sensitive areas and on how potential detrimental impacts can be mitigated;

• Stakeholders have commented on the need to explore options for sustainable transport of clay and bricks such as rail and inland waterways.

Developing a Policy for Brick Clay Supply

4.21 There have been ongoing discussions between Dudley and Walsall Councils, neighbouring MPAs, the regional planning body, the brick industry and other users of local clays on the types of materials used in local brickworks, where they come from, the current state of supply, and the potential to increase supplies.

4.22 Direct one-to-one meetings and discussions with manufacturers have been very important in developing the policy towards brick clay. For example, we
have learned from this that there are limits to how far we can go in encouraging use of alternatives to virgin materials, in support of the hierarchical approach. For economic reasons manufacturers are already maximising the use of raw materials by reducing the clay content of bricks as far as possible, by recycling wet clay off cuts, crushed fired waste (grog) and other materials, and by using alternatives to primary aggregates.

4.23 It is estimated that around 10% of the materials used to make bricks derive from alternative sources, called MARSS (materials of recycled or secondary aggregates). Manufacturers say that the scope to increase this is limited, and that achieving 15% MARSS would be challenging. The following barriers to increased use of alternative materials have been identified:

- Quality – it needs to perform as well as virgin clay;
- Cost/ benefit – e.g. transport, companies may also charge more for the material once they realise it has a value;
- Regulatory issues – classification of waste and requirements for treating it and managing it;
- Reliability of supply – whether the source of waste used will continue to be available on a regular basis.

Manufacturers are therefore likely to continue to rely on virgin clays as the main source of material for bricks at least for the foreseeable future.

35 See: A Sustainability Strategy for the Brick Industry: An Update (2009), Brick Development Association
**Etruria Marl**

4.24 As Etruria Marl is the main brick clay used by Black Country brickworks and the most important clay resource available locally, a key priority for the Core Strategy is to identify potential new sources of this material, of sufficient quality to meet the needs of the manufacturers, which can keep the Black Country brickworks in production for as long as possible.

4.25 The Black Country Minerals Study shows that some of the resource areas have already been worked out (see Black Country Minerals Study Figure 003), and that much of the remaining resource is sterilised by urban development. The main unsterilised resource areas remaining are in the Himley, Kingswinford and Pensnett areas of Dudley, and in the Stubbers Green, Shelfield, Walsall Wood and Brownhills areas of Walsall. The extent of clay resources is shown on Map MC2 in Appendix 7 of the Core Strategy.

4.26 However, just because a resource exists, it does not mean that it can be worked or that it will be suitable for making bricks. The suitability and viability of the resource can only be established through stakeholder engagement. For example, we know from this that the quality of clays is very important. Each of the brickworks in the Black Country uses different machinery and makes different products, so clays that may be acceptable to one factory may not be acceptable to others.

4.27 We have also learned from the industry that the quality of the clay resource varies across the Black Country. Some outcrops of Etruria Formation clays are faulted, which means that the clays are mixed up with other materials and may also have significant overburden, making them difficult or uneconomic to work. This can also affect the quality and quantity of usable material. The industry has therefore focused its interest on areas where investigations have shown that clays of the right quality are present, and could be worked economically.
4.28 In Dudley the remaining resource areas are restricted and constrained by the proximity of existing/ proposed residential and employment areas, recreational areas and nature conservation designations. The Dudley resource areas also lie within Regeneration Corridor 10: Pensnett – Kingswinford where new employment and housing development is proposed (see Figure 005 of Black Country Minerals Study, Appendix 2 of the Core Strategy and Appendix 3 of Sustainability Appraisal). As this is an employment-led corridor and most of the areas surrounding the resources are to be retained in employment use, this need not be incompatible with mineral working. However, if working is to continue in the long-term, or even expand, potential conflicts with neighbouring uses must be minimised.

4.29 The remaining resource areas in Walsall are larger and are less constrained by proximity of residential areas and non-mineral development proposals. Most of the resources in the Stubbers Green area are not badly affected by faulting or overburden as areas, and the quality of the clay is considered good, although in places there is a risk of flooding. However, the resource areas to the north of the A461 are affected by overburden and faulting and by nature conservation designations (see Figure 005 of Black Country Minerals Study and Appendix 3 of the Core Strategy Sustainability Appraisal Report). This means that difficult choices may have to be made about which areas should be allowed to be worked.

4.30 The relationship of the resources to the brickworks is an important issue. Brickworks are where they are for historic reasons – they are usually located adjacent to their main source of supply. However, as the clay is a finite resource, these reserves will reduce over time and when they dry up completely, this can leave a brick works entirely reliant on imports. This has already happened to Aldridge Works in Walsall and Stourbridge Works in Dudley. Sandown Works in Walsall may suffer the same fate within the next few years if no new resources

36 Note: Appendix 3 of the Sustainability Appraisal Report (November 2009) by UE Associates shows a wider range of constraints than Figure 005 of the minerals study. Figures B-1 and B-4 of the Black Country Strategic Flood Risk Assessment (SFRA) (February 2009) by Jacobs also supersede the flood risk areas shown on Figure 005.

37 See note above.
can be identified. Ketley Quarry in Dudley is also some distance from Dreadnought Works which it supplies, although the supply to the works is secure as both are in the same ownership.

4.31 Dudley MBC and Walsall Council have been engaging with the operators of factories with the greatest deficiencies, with a view to identifying new sources of supply if possible within the resource areas identified above. As a result of these discussions, several potential future working areas were put forward. Operators have also suggested that deeper working within existing permitted areas may increase existing permitted reserves. However, this can only be supported where it would not cause instability problems which might affect final restoration.

4.32 The identification of areas for future working must also take into account other important constraints and material considerations, such as proximity to residential areas and other development areas, environmental constraints and access/highway capacity issues. Some potential resource areas have significant constraints, for example, there are SSSIs covering parts of the resource area in Walsall.39

4.33 Policy M3 of the Core Strategy proposes the following areas of search for extraction of Etruria Marl, based on the resources identified through engagement with manufacturers (including an additional area identified in Dudley):

- MA3: Himley/Oak Farm (Dudley)
- MA4: Ketley (Dudley)
- MA5: Stubbers Green (Walsall)

38 Cradley Special Brick are also entirely reliant on imported material. The statement on page 55 of the Black Country Minerals Study is incorrect, with regard to their supply of fireclay. This factory uses relatively small quantities of different materials which are supplied by their parent company, Hanson. These arrangements are considered satisfactory and the company has not indicated it has any concerns about supply.

4.34 Table A1a in Appendix 2 shows how the additional resources would affect supplies. This is the information underlying Table 21 in the Justification to Policy WM3, but it should be noted that Table 21 does assume that imports will make up shortfalls, which is by no means certain as there is no guarantee that suitable material will be available in other areas. There is a Proposed Change (February 2010) to Table 21 of Policy WM3, to correct/ update the information in the table in the light of the information presented in the Appendix to this Background Paper. There are also concerns about the relative quality of the clays available elsewhere, compared to the quality of the resources in the Black Country. Discussions with the manufacturers and neighbouring MPAs suggest that there are similar supply issues in adjoining parts of Staffordshire, which is the other main source of Etruria Marl.

4.35 The permitted reserves and the other potential resources identified in the areas of search are not sufficient to provide a 25 year supply of Etruria Marl to each operational works, and they may not be sufficient to provide supplies to 2026 in some cases, even allowing for imports. However, the additional resources in the areas of search should be sufficient to maintain supplies to the main Black Country brickworks for at least 10 years (where requirements can be quantified), and possibly longer if imports and deeper working are able to supplement local supplies.

4.36 During the preparation of the Core Strategy no other areas with proven resources suitable for brick making could be identified. The Core Strategy can therefore only go so far in meeting future supply requirements, and where shortfalls remain this will need to be addressed through other DPDs, if possible. Unfortunately, as some operators have been unwilling to disclose supply information, it is not possible to specify the tonnages of Etruria Marl required by each works to maintain a supply to the end of the plan period and to maintain a 25-year supply.

4.37 However, it is possible to provide an estimate of the residual requirements which Dudley and Walsall will need to plan for outside of the Core Strategy. This information is presented in Table A2c of Appendix 2. These are minimum
requirements, as they do not include requirements for Stourbridge Works in Dudley or Aldridge Works in Walsall, for which we have no confirmed data. It will not be possible to plan for future supplies to these works unless the information is forthcoming from the operator.

4.38 It will be seen from this table that whilst Dudley appears not to have any residual requirements, Walsall has significant shortfalls in supply. There are no guarantees that Walsall Council will be able to identify the resources required in other DPDs, as this will depend on whether or not suitable resources can be identified outside the Stubbers Green area of search. There may also be a need for Dudley to identify further supplies for Stourbridge Works if the works re-opens, and if the operator provides evidence that the resources within the area of search are not sufficient.

*Importation of Clay to Brickworks*

4.39 Any material obtained from a clay pit not immediately adjacent to a works is normally regarded as an import. Imports are likely to continue to play a role in supplying Black Country brickworks, even though they may not be able to fully address shortfalls in supply. For example, they allow brickworks to be supplied with material which does not occur locally. However, increasing the level of imports will inevitably have some impacts on the local highway network and possibly local communities if haulage routes go through or near to residential areas. Policy WM3 therefore sets out requirements for proposals to allow or increase imports of clay to brickworks.

4.40 The definition of “imports” has been reassessed in the case of two of the brickworks in Walsall (Atlas and Sandown) which are subject to restrictions on imports, given their close relationship to the Stubbers Green area of search. As the resource area at Stubbers Green is relatively self-contained and well-related to these works and also to Aldridge Works, if these resources could be pooled or shared between the works, haulage distances would be minimal. Walsall Council has therefore agreed with the manufacturers that in this scenario (and subject to satisfactory haulage arrangements), the haulage of material from the Stubbers
Green area of search to brickworks in Walsall will not be regarded as importation. This is reflected in Policy MIN3.

**Fireclay – The Case for Strategic Stockpiling**

4.41 Identifying an adequate supply of fireclay to the brickworks which use this material is currently not possible as there is no certainty that fireclay will be extracted in the Black Country during the plan period. Brick manufacturers have also noted that the need for fireclay is market-driven and fluctuates according to demand for buff bricks so it is difficult to predict future requirements.

4.42 As fireclay occurs naturally as a layer beneath coal seams, it is not easily accessible or economic to work on its own. Supplies are therefore only likely to be obtained as a by-product of surface coal working, if this happens in the future. The most likely source for coal and fireclay in the Black Country is the Brownhills area of Walsall, although we do not know whether the fireclay resources are of the right quality for making bricks and this can only be confirmed by testing.

4.43 As well as being recommended by the Black Country Minerals Study, stakeholders have commented on the need to identify locations for stockpiling of clay, and the RSS Phase 3 Revision has sought to address the possible need for “strategic stockpiles” or “virtual quarries” where clay can be stored on a long-term basis and used by brick manufacturers as and when required. The need for surface coal working to provide fireclay (where feasible) is addressed in Policy MIN4 (see Section 5 for details), and the need for strategic stockpiling is addressed in Policy MIN3.

4.44 There is already one stockpile of fireclay operating in the Black Country at Birch Coppice in Walsall, but this is not a large resource. There are Proposed Changes (February 2010) to Policy MIN3, the Policy Justification and the Proposals Map to reflect the existence of this resource and to correct factual inaccuracies, in response to comments received from Potters Clay & Coal Company at the publication stage. The evidence therefore points to a need to make provision for further stockpiling, as this is likely to provide the only means of ensuring long-term supplies of fireclay if extraction takes place. This is
because surface coal working tends to be a relatively rapid operation which does not lend itself to supplying limited amounts of material on a regular basis, in the way that brick works or pottery clay suppliers would require.

4.45 However, brick manufacturers have pointed out that stockpiling only works if the whole scheme, from extraction to storage, is properly thought out, having regard to the needs of the industry. For example:

- The extraction process needs to be designed with clay extraction in mind and needs to have a direct input from the industry to ensure that the material extracted is of the right quality for brick making. Testing should be done prior to extraction, to check the quality of the material and determine how extraction should proceed.

- Different batches of clay may also need to be stockpiled separately to maintain quality control. Limitations of space and costs usually prohibits stockpiling on-site at brickworks, therefore separate stockpiles are needed in suitable locations elsewhere.

- With fireclay, quality control is very important because different users have different requirements. For example, material suitable for pottery making may not be suitable for brick-making.

4.46 Donnington (Leicestershire) was quoted as an example of stockpiling which had worked reasonably well. This was a large coal and fireclay extraction scheme carried out by a consortium of operators including brick manufacturers. The material extracted had been sorted into a number of different stockpiles each of which had been allocated to the consortium members. Although the stockpiles were not intended to last beyond 1984 there is still material remaining. At Caughley (Telford & Wrekin), both red and buff clays are stockpiled as different layers within a “virtual quarry.”

4.47 The Donnington experience suggests that strategic stockpiles could have a very long life, and could also be visually intrusive without adequate mitigation. They will also generate significant HGV movements on the highway network both
during the stockpiling process, and afterwards, as and when the clay is removed. They are therefore not the kind of proposal that either Dudley MBC or Walsall Council will be prepared to approve anywhere within their administrative area unless they are carefully designed and landscaped, to avoid harmful visual impacts. The transport and amenity impacts of strategic stockpiling must also be fully addressed.

4.48 There is at present insufficient evidence to support the identification of specific locations for “strategic stockpiles” at the present time, although logic suggests that strategic stockpiles should be conveniently located to the brickworks which will be using them. It cannot be assumed that the existing stockpile at Birch Coppice is the most appropriate location for a strategic stockpile serving several brickworks. Policy MIN3 sets out appropriate guidance on the location of such stockpiles and requires proposals to be well-related to both the likely sources of fireclay and the brickworks which would be supplied, and to address visual impacts/impacts on the character of the landscape, accessibility and impact of transportation of material on the highway network and local communities. The manufacturers’ concerns about the methods of extraction are reflected in Policy MIN4.
5. Policy MIN4: Exploitation of Other Mineral Resources

5.1 Coal and New Coal Based Energy Technologies

Black Country Minerals Study – Key Findings and Recommendations

5.1.1 The Black Country Minerals Study found evidence of considerable coal resources in the Black Country, mainly in Dudley and Walsall. Although much of the resource is sterilised by built development, there is evidence that resources in the Brownhills may be viable. The Study also noted the potential role of coal in providing a secure, diverse and sustainable energy supply in line with the Government’s current policy on energy, and the potential of new / emerging coal based energy technologies such as coal bed methane and underground coal gasification.

5.1.2 The Study recommended the following action with regard to coal and coal based energy technologies:

- Spatial approach – supply of minerals needs to be linked to other spatial issues such as economy, environment, growth, regeneration, health, transport, climate change and waste (1.4.1);

- Joined-up approach – need to work with adjacent authorities on minerals to resolve regional and cross-boundary issues (1.4.1);

- The scope for coal extraction and coalbed methane exploitation should be explored, although the scope for coal extraction may be limited given the environmental and amenity constraints (1.3.25 – 1.3.28);

- Where Natura 2000 Sites may be affected by mineral working proposals the Core Strategy should demonstrate that this would not harm their integrity.

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5.1.3 The coal resources in the Black Country form part of the South Staffordshire Coalfield, and their general extent is shown in Figure 002 of the Black Country Minerals Study (Summary Geology). As well as coal, the Coal Measures contain ironstone and fireclay which have also been exploited in the past. It is not clear whether there is any demand for ironstone, but as mentioned above (see Section 4) there is a demand for fireclay from local brick manufacturers and also from a local supplier of pottery clay blends.

5.1.4 The following new evidence has become available since the Study was prepared:

- **Surface Coal Area Mapping** has been provided to the authorities by the Coal Authority. This mapping project by the BGS was completed in the spring of 2008 and was unfortunately not available in time to inform the Black Country Minerals Study;

- **Evidence of the need and demand for fireclay** has been reviewed and discussed with the relevant stakeholders;

- **Evidence on potential for new and emerging coal-based technologies has been reviewed** and discussed with the Coal Authority.

5.1.4 Map MC3 in Appendix 7 of the Core Strategy shows the extent of coal resources in the Black Country, including surface coal resources (i.e. resources of 30 – 50 m depth) identified by latest BGS mapping, supplied to MPAs under licence by the Coal Authority. As the Black Country Minerals Study has noted, most of these resources are sterilised by built development, although there may be potential to exploit these resources through prior extraction in advance of redevelopment (see Section 2 and Policy MIN1). The Black Country Minerals Study identifies significant coal resources in the Pelsall and Brownhills areas of Walsall. The new surface coal resource data confirms that the main areas of
unsterilised resources are on the southern fringes of Dudley (south and west of Halesowen) and on the north-western fringes of Walsall (Pelsall and Brownhills).

5.1.5 The scope for working the resources in Dudley is not known. The unsterilised resources in Walsall are in the Green Belt areas to the west of Regeneration Corridor 15: Brownhills (see Appendix 2 of the Core Strategy). Any future proposals for surface coal and clay working would need to be carefully designed to avoid unacceptable impacts on existing and proposed residential areas in and around the Corridor. Some of the unsterilised coal resource areas in Walsall are also important for nature conservation, for example, Brownhills Common and The Slough SINC/ proposed Local Nature Reserve.

5.1.6 There is currently no requirement in national policy guidance to identify sites for the working of coal. Only a small proportion of the total coal resource in the UK is currently economically workable, and surface working is more likely to be viable than deep mining. The economic potential of surface coal resources can only be confirmed through testing.\(^{41}\) Coal has been exploited in Walsall in the recent past, so it is possible that proposals might come forward within the plan period, particularly in the light of increasing concerns about energy security.

5.1.7 The last surface coal working scheme in the Black Country, at Ryders Hayes in Walsall, did not happen very long ago (1998 – 2001). There is also a “dormant” permission for coal and clay working at Brownhills Common dating back to the 1950s which could be activated at any time on submission of a schedule of “modern” conditions to Walsall Council in accordance with the Environment Act 1995, and there has also been interest in working in the areas to the west of Brownhills Common. As this is an existing commitment, it is proposed that the location of the dormant permission at Brownhills Common should be shown on the Minerals Key Diagram, on Corridor Map 15 and on the Walsall Proposals Map.

5.1.8 The permission covering Brownhills Common also covered another site to the south, Birch Coppice, which was worked during the 1950s and 1960s.

\(^{41}\) See MPG3: Coal Mining and Colliery Spoil Disposal (March 1999), ODPM and Summary of Information on Coal For Land-Use Planning Purposes (2006), BGS for CLG
Significant quantities of fireclay as well as coal were taken out of the Birch Coppice site as well as out of Ryders Hayes, and a stockpile of this material still remains. It is believed that resources of similar quality exist at Brownhills Common. The operator of the stockpile, Potters Clay & Coal Company Ltd, has confirmed that they are of excellent quality for pottery clay blends. However, the properties required for potting clays are different to the properties required for brick clays, so it is uncertain whether the fireclay resources in Brownhills are also suitable for brick making.

5.1.9 Although surface coal and clay working is a relatively short-lived activity compared to other mineral operations, and final restoration can be beneficial, the impact of the mining process can be considerable, involving the removal of significant quantities of overburden and transportation of large quantities of material away from the site. It is therefore recognised in national policy guidance that there should normally be a presumption against coal working unless a proposal would meet certain environmental acceptability tests and existing “saved” UDP policies reflect this (see Dudley UDP Policy M4, Sandwell UDP Policy M5, Walsall UDP Policy M9 and Wolverhampton UDP Policy EP18). There are Proposed Changes (February 2010) aimed at addressing inconsistencies between MIN4 and national policy guidance, in response to comments by the Coal Authority, Potters Clay & Coal Company and the Wyrley Estate at publication stage.

Stakeholder Engagement

5.1.10 Stakeholders have commented as follows:

- Environmental bodies have highlighted the potential environmental and amenity impacts of mineral working and have argued that it should be minimised as far as possible;

42 See MPG3: Coal Mining and Colliery Spoil Disposal (March 1999), ODPM, paragraph 8
The Regional Conformity Panel and neighbouring MPAs have highlighted the need to work together on minerals, and that identifying future supplies is a collective responsibility;

GO-WM has queried the need for so many minerals policies/ for policies on coal and natural building stone, although the latter has been supported by the Coal Authority and English Heritage;

Natural England has commented that Brownhills Common is of sufficient quality to be designated as a SSSI;

The Wyrley Estate has put forward a proposal for coal and fireclay working at Yorks Bridge, to the west of Brownhills Common;

Staffordshire County Council and Cannock Chase District Council have objected to Yorks Bridge on various grounds, and have questioned its deliverability;

The Coal Authority has also commented on the need to address the safety and stability issues arising from the legacy of former mineral working.

Developing a Policy for Coal/ Fireclay and New Coal Based Energy Technologies

The Potential for Coal and Fireclay Working

5.1.11 The GO-WM has queried the need for a policy on coal as this is not a “pan Black Country issue.” However, there are other non-pan Black Country issues which the GO-WM has not objected to, such as the identification of locations for primary sand and gravel extraction. National policy guidance advises that structure plans and Part 1 of UDPs should set out strategic policies on coal,\(^\text{43}\) suggesting that this does belong in the Core Strategy rather than in another

\(^{43}\) MPG3: Coal Mining and Colliery Spoil Disposal, paragraph 37.
DPD. The inclusion of policy guidance on the working of coal and fireclay is also supported by the Coal Authority.

5.1.12 Furthermore, the exploitation of coal through surface working is likely to be the only means of providing supplies of fireclay to brickworks in the foreseeable future. A policy on this is considered to be justified to avoid needless waste of resources. This will ensure that where coal working is permitted, opportunities to extract fireclay are not missed, and that material of sufficient quality for brick manufacture is extracted and made available to local end users in ways that will meet their needs. The requirements in Policy MIN4 reflect the comments received from brick manufacturers during stakeholder engagement (see paragraphs 4.35 – 4.42 above).

5.1.13 Walsall Council is not aware of any current proposals for working the coal at Brownhills Common, but there can be no objection to this in principle as a “dormant” permission already exists. However, working could only commence on the submission of a schedule of modern conditions, so Policy MIN4 includes guidance on what such conditions should cover. If such a proposal came forward it would be unfortunate, because this area has significant nature conservation value and is an important recreational resource for local communities (see paragraph 5.1.5 above and Volume 3 of Core Strategy Sustainability Appraisal Report). Although Natural England has commented that the SINC is of sufficient quality to be designated as a SSSI, this has not yet happened.

5.1.14 The Yorks Bridge proposal has been the subject of earlier discussions between the landowner (Wyrley Estate) and Walsall Council. The cumulative impact of working both Yorks Bridge and Brownhills Common is likely to be unacceptable to Walsall Council, given the impact that this would have on nature conservation sites, the amenity of local communities, and the local transport and canal networks. Working at Yorks Bridge is only likely to be acceptable to Walsall Council if it can be demonstrated that the environmental, amenity and transport constraints can be successfully overcome, and if, through negotiation with the various interested parties, this would lead to the permanent revocation of the
permission at Brownhills Common. Walsall UDP Policy M8 makes reference to this.

5.1.15 The Yorks Bridge proposal covers a large area, extending beyond the Walsall Borough boundary into Staffordshire (Cannock Chase District). The boundary is shown on a plan supplied with the Wyrley Estate’s representation on the Core Strategy Issues and Options. They also put the site forward as a strategic mineral proposal during consultation on options for the Staffordshire Minerals Core Strategy.\footnote{See Site Profile, available on Staffordshire County Council website at: http://www.staffordshire.gov.uk/environment/developmentcontrol/planning/policy/mineralsWasteDevelopmentFramework/mineralsDevelopmentPlanDocuments/Potential+Site+Options.htm} Coal and clay working at Yorks Bridge would therefore require the approval of Staffordshire County Council as well as Walsall Council.

5.1.16 Officers from Walsall Council and Staffordshire County Council met with Wyrley Estate and their representatives in February 2008 to discuss the Yorks Bridge proposal. During the discussions, a number of potential constraints to working were noted:

- Potential impact on Cannock Extension Canal SSSI and SAC - Habitats Directive requires an assessment demonstrating that the proposal will not harm the integrity of the site;

- Potential impact on Brownhills Common and The Slough SINC and proposed LNR, part of which is within the proposal site;

- Potential impact on local communities in the Brownhills area, and impact of uncertainty about timescale on Core Strategy proposals for this area (Regeneration Corridor 15);

- Potential impacts on the highway network – there is unlikely to be scope to transport material by rail, and the feasibility of transporting it by canal is unproven.
5.1.17 It was also noted that the proposal might bring benefits in terms of lifting the threat to Brownhills Common, restoring degraded areas at Wyrley Common (in Cannock Chase District), and addressing unmet demand for fireclay. However, it was clear from the discussion that the proposal is still at a relatively early stage, for example, no ecological report or Habitats Regulations Assessment has been carried out.\(^{45}\)

5.1.18 The economic viability of working these resources is uncertain. There appears to be more winnable clay than coal at Brownhills Common and Yorks Bridge, suggesting that at the moment it is not economic to work them. It was implicit in the discussions with Wyrley Estate and Potclays Ltd that end users would need to be found for both the clay and the coal to make the Yorks Bridge project viable. The Yorks Bridge proposal is also being promoted by the landowner rather than by any of the main players in the coal industry, such as UK Coal or Parkfield Estates.

5.1.19 This suggests that future proposals for coal and clay working in Brownhills may be driven more by the demand for the clay than the demand for the coal - assuming of course that the quality of the clay fulfils the requirements of the brick industry and that it is economic to work it. Brick manufacturers have also indicated that the need/ demand for fireclay fluctuates, making it difficult to predict future requirements. Thus, there is no certainty that either of these sites could be worked economically within the plan period.

5.1.20 Walsall Council therefore considers that there is insufficient evidence to support the allocation of Yorks Bridge as a mineral working proposal in the Core Strategy. The proposal is not essential to the delivery of the strategy and may cause harm to key environmental assets and local communities. The long-term benefits of the proposal following restoration may therefore outweigh the harm caused by it, in which case, far from supporting the strategy it would conflict with Spatial Objectives 6 and 8. Nevertheless, surface coal and clay working cannot be ruled out completely, so there is a need for locally specific guidance, setting out the key issues that need to be addressed if an application does come.

\(^{45}\) Walsall Council is not aware that any such assessment has been carried out.
There are Proposed Changes (February 2010) to Policy MIN4 and the Policy Justification, aimed at clarifying the status of the Brownhills Common and Yorks Bridge proposals, their relationship to each other, and the position of interested parties, in response to comments made by Potters Clay & Coal Company, the Wyrley Estate, Staffordshire County Council and Cannock Chase District Council at publication stage.

5.1.21 The “saved” UDP Policies M8 and M9 provide guidance against which proposals at Brownhills Common and Yorks Bridge could be considered if they came forward in advance of the Core Strategy. It is proposed to replace them with the guidance in Core Strategy Policy MIN4 and the justification to this policy, so that key policies towards minerals are contained in the same place. However, if it is decided that there should not be a policy on coal in the Core Strategy, Walsall Council will wish to retain UDP Policies M8 and M9. The situation has not changed significantly since the UDP was adopted and these policies remain up-to-date and relevant.

Addressing the Legacy of Previous Mining Activity

5.1.22 Legacy issues raised by the Coal Authority are a delivery/viability issue rather than a minerals issue. The Stage Two Infrastructure and Deliverability Study has considered geotechnical risks to delivery of the strategy, and identifies the areas of the Black Country which have been subject to underground coal and limestone mining in the past.46 This indicates that much of the central part of the Black Country is affected, with most of the Regeneration Corridors having had some previous mining activity.

5.1.23 However, as this was a high level assessment, more detailed risk assessments will need to be undertaken at a local level to determine constraints affecting specific sites or areas. The Coal Authority has recently provided the authorities with more up-to-date information about previous mining activities in

46 See Black Country Joint Core Strategy: Stage 2 Infrastructure and Deliverability Study (November 2006), Mott MacDonald, Technical Note 6: Ground Risk and Mineral Extraction, Section 1.2.2, Table 3 and Figure 5.
the Black Country. This information became available too late to influence the Core Strategy, but will help the authorities to identify risks affecting specific sites and areas when planning development at a more local scale through other DPDs.

5.1.24 Section 2e of the Core Strategy “Delivering Our Vision” acknowledges the legacy of previous mining activity and identifies land remediation as a priority for delivery intervention. It is also recognised that remediation and stabilisation schemes play an important role in bringing forward new development and may be undertaken in association with extraction of mineral resources. The Core Strategy mineral policies therefore address the legacy of previous mineral working through Policy MIN1 which covers mineral safeguarding. Policy MIN5 also requires new mineral working proposals and restoration programmes to include measures to maintain stability, to prevent future problems. There are Proposed Changes (February 2010) to the published Policies CSP4 and MIN4, aimed at addressing outstanding concerns about legacy issues expressed by the Coal Authority at the publication stage.

The Potential for New Coal Based Energy Technologies

5.1.25 National policy guidance requires MPAs to consider options for exploitation of coal bed methane and underground coal gasification in areas with potential for these technologies (MPS1, Annex 3). This was also highlighted in the Black Country Minerals Study.

Coal Bed Methane

5.1.26 Coal bed methane (CBM) can be recovered commercially from old mines or coal resource areas which were not mined previously because it was either unsafe or uneconomic to do so.\(^{47}\) As well as providing a new source of energy, exploitation of CBM also minimises the potential for this potent greenhouse gas to escape into the atmosphere.

\(^{47}\) See Mineral Profile: Coal (February 2007), BGS, Section 8
5.1.27 The main requirement for exploiting virgin coal bed methane (VCBM) is an unworked coal seam thicker than 0.4m at depths of between 200 – 1200m. The Black Country may therefore have some potential for this although the resource mapping undertaken by the BGS does not appear to have identified the Black Country as an area of “Good CBM Potential” (this is difficult to tell from the scale of the maps available).48

5.1.28 The authorities are not aware of any interest in CBM exploration in the Black Country, and the Coal Authority has confirmed that no licences have been granted to prospect for it in the area to date. However, licences have been granted in other parts of the South Staffordshire Coalfield (Cannock Chase & Lichfield). If a viable resource is found there, there may be interest in prospecting for CBM in adjoining parts of the Black Country, and we cannot rule out the possibility that this will happen within the plan period.

5.1.29 Extraction of CBM is regulated partly by other licensing regimes and partly by the planning system. A Petroleum Exploration Development Licence (PEDL) is required to “search for and bore for and get” CBM. Licences are issued by the Department for Energy and Climate Change (DECC) through a “bidding” procedure. A PEDL allows prospecting within a particular grid square and gives the holder the right to prospect for methane within the area and to exploit any methane present. However, a Coal Access Agreement must also be obtained from the Coal Authority to drill through any coal seams. Planning permission is also required to extract CBM (though it may not be required for boreholes sunk for testing purposes), and for the pumping apparatus.

5.1.30 Extraction of CBM is not like a normal quarrying operation. Like oil, the gas is pumped from underground and transported via pipes, and therefore does not require transport by road or rail. The pumping apparatus is in the form of a small wellhead or rig around 8 – 18m tall which occupies a site of around 0.3 ha. The main spatial planning issues are likely to be noise and visual impact from the pumping apparatus. There is some flexibility over where the apparatus can be

48 Maps of the UK are available in Mineral Planning Factsheet: Coal and Coalbed Methane (October 2006), BGS (Figure 6) and Mineral Profile: Coal (February 2007), BGS (Figure 8.3.2).
located, but this is to a large extent dictated by the location of the underground resources. As these resources can cover a wide area, the apparatus may have to move around to exploit them fully.

5.1.31 Policy MIN4 recognises that there may be potential for exploitation of CBM within the plan period, and explains what action will be taken if a PEDL is issued. It also provides interim guidance on the information proposals for CBM exploitation will be expected to provide, with regard to the duration of the operations, siting, and the need for appropriate screening to minimise noise and potentially harmful visual impacts.

Underground Coal Gasification

5.1.32 Underground coal gasification (UCG) requires coal seams more than 2m thick at depths of between 600 – 1200m. The scope for this in the Black Country is unclear. Information published by BGS appears to suggest there is some potential for UCG in the general vicinity of the area. However, the authorities are not aware of any interest being shown in UCG in the Black Country. The Coal Authority has confirmed that this technology is not at an advanced stage, and there are also significant constraints to this technology compared to CBM. Provision has therefore not been made in the Core Strategy for UGC, but if the situation changes this can be addressed through a future review.

5.2 Natural Building Stone

Black Country Minerals Study – Key Findings and Recommendations

5.2.1 The review of the geological data shows that much of the area’s natural building stone resources (particularly limestone and dolerite) have been sterilised by built development. However, the Study suggested that there may be resources that could be exploited to provide resources for conservation of historic buildings.

5.2.2 The Study recommended the following action:
• Joined-up approach – need to work with adjacent authorities on minerals to resolve regional and cross-boundary issues (1.4.1);

• The scope and potential need for natural building stone should be considered (1.3.29 – 1.3.31).

Baseline Evidence - Update

5.2.3 There have been no improvements to the baseline evidence for natural building stone resources since the Black Country Minerals Study was prepared. However, the following developments have occurred:

• Mineral Extraction and the Historic Environment – final version of this guidance has been issued by English Heritage;

• Historic Stone – a new project to source historic stone for conservation projects been launched by a quarry operator in Staffordshire;

5.2.4 The Black Country Minerals Study identifies significant natural stone resources in the Black Country. These are Silurian and Devonian limestone in Sedgley and Dudley Town Centre and in Rushall and Walsall Town Centre, dolerite in various locations, and building stones (mainly sandstones) from the Halesowen formation in Halesowen and the surrounding areas of Dudley. The extent of these resources is shown on Maps MC1 and MC2 in Appendix 7 of the Core Strategy.

5.2.5 Natural building stone is not currently worked in the Black Country. The last stone quarry, Edwin Richards in Sandwell, closed in 2007. This was producing dolerite, but for use as aggregate rather than as a building stone. Historically, local stone has not played a major role in building construction in the Black Country. This is because most of the natural building stone resources available locally are of poor quality compared to alternatives, such as brick.
However, there are exceptions to this general rule in parts of Dudley, where historic buildings made from locally quarried building stones do contribute to local character and distinctiveness.

5.2.6 Conservation officers have confirmed that the following local building stones are important to the historic environment:

- **Limestone (Gornal Stone)** – a grey/white stone quarried and used mainly in the Gornal, Sedgley and Dudley areas, for example, Dudley Castle and the Earl of Dudley’s Fountain in the Market Place, Dudley;

- **Dolerite (known as Rowley Rag)** - a hard, black basalt quarried from various sites and used mainly in stone setts and kerbs throughout the Black Country and beyond;

- **Halesowen Sandstone** – red sandstone quarried and used mainly in the Halesowen area and adjoining parts of north Worcestershire, for example, in the church of St. John the Baptist in Halesowen and Halesowen Abbey ruins.

**Stakeholder Engagement**

5.2.7 Stakeholders have commented as follows:

- GO-WM and the Regional Conformity Panel have queried the need for a policy and have suggested this could be addressed through policies on mineral safeguarding and local character and distinctiveness or through other DPDs;

- English Heritage, CPRE (Staffordshire) and the Black Country Geodiversity Partnership have expressed support for the policy;

- AWM has commented that it is sustainable to source material locally.
Developing a Policy for Natural Building Stone

5.2.7 National policy guidance advises that authorities should consider the need for natural building stone (MPS1, Annex 3). However, the GO-WM and the Regional Conformity Panel have queried the need for a policy on this. The authorities feel that general principles for the exploitation of these resources belong in a strategic plan such as the Core Strategy rather than in another DPD. The inclusion of policy guidance on natural building stone is also supported by English Heritage.

5.2.8 There is increasing interest in natural building stone at a national level. The new English Heritage good practice guide highlights the importance of this in maintaining historic fabric and local distinctiveness.\(^{49}\) English Heritage and the BGS are also working with geologists and conservation specialists to develop a Strategic Stone Study for each county area in England.\(^{50}\) This will identify and catalogue the most important stones used in local historic buildings and potential sources of supply. It is hoped that the technical work undertaken for the Black Country Core Strategy will inform this study.

5.2.9 Although the Black Country Minerals Study confirms the existence of natural building stone resources in parts of the Black Country, it is not certain that anyone will wish to work these resources in the future. The only circumstances where this is likely to happen are if materials are needed for the repair and conservation of historic buildings or structures built out of the same materials. As blasting is not necessary for the working of stone as a building material (as is normally the case with stone quarried as aggregate), with appropriate screening and mitigation,\(^{51}\) working could take place on a small-scale without causing unacceptable harm to neighbouring uses.

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\(^{49}\) Mineral Extraction and the Historic Environment (January 2008), English Heritage

\(^{50}\) See: [http://www.bgs.ac.uk/mineralsuk/minequar/stones/eh_project.html](http://www.bgs.ac.uk/mineralsuk/minequar/stones/eh_project.html)

\(^{51}\) Mineral Planning Factsheet: Building and Roofing Stone (March 2007), BGS
5.2.10 The authorities have recently been approached by a quarry operator in Stoke-on-Trent who is developing a new project called “Historic Stone.” Essentially, the operator will act as a “broker,” identifying sources of natural building stone that become available through quarrying activities, and supplying it to those who require it for conservation projects. His aim is to minimise waste of stone that may be present within quarries extracting other materials, and on redevelopment sites.

5.2.11 Discussions with this operator indicate that viability can be a significant issue for contractors seeking supplies of small quantities of natural building stone. It also suggests opportunities to extract natural building stone through “prior extraction” can often be missed, as developers may not be aware of the potential demand/ value of the material. The Core Strategy therefore aims to address the supply issue in the following ways: through the mineral safeguarding policy (MIN1), which aims to minimise needless waste of mineral resources, through an “enabling” policy for extraction of natural building stone (MIN4), where this may prove viable, and through the general policy on mineral working (MIN5), which requires operators to minimise waste and extract all potentially useable materials.

5.2.12 The evidence base for natural building stone resources could also be further developed to provide better information to developers on the resources likely to be present within different areas, and details of those who may be interested in using them, for example, local conservation officers, English Heritage, and a contact for the Historic Stone project.

Black Country Minerals Study – Key Findings and Recommendations

6.1 The Black Country Minerals Study identified a range of potential positive and negative effects from mineral working and processing in the Black Country.

6.2 The main positive impacts identified are: potential to utilise waste to provide alternatives to primary land-won aggregates, potential to support the growth and development proposed in the strategy, potential of locally sourced materials to promote local distinctiveness and support conservation of the built environment, potential to provide a source of energy (in the case of coal), and potential to contribute positively towards environmental enhancement through appropriate restoration and after-uses.

6.3 The main negative impacts identified are: potential impacts on internationally and nationally important environmental assets (e.g. SSSIs/ SACs) and water resources, potential to exacerbate flood risk, potential conflict with the Urban Park initiative, potential impacts on local communities, and impacts on air quality and climate change from processing and the transportation of minerals by road.

6.4 The Study included the following recommendations on balancing the positive and negative aspects of mineral working:

• Spatial approach – supply of minerals needs to be linked to other spatial issues such as economy, environment, growth, regeneration, health, transport, climate change and waste (1.4.1);

• Where Natura 2000 Sites may be affected by mineral working proposals, the Core Strategy should demonstrate that this would not harm the integrity of the protected habitats (1.13.22);
• Existing and future mineral developments should reflect/ contribute positively towards green infrastructure objectives (e.g. Landscape Action Plan, Urban Park, BAP and GAP) (4.13.24 - 4.13.25 and 4.13.36);

• Community buffer zones may be necessary to protect local communities from mineral working and to support the Urban Park objectives (4.13.28, 4.13.37, 4.13.40);

• Mitigation of potential impacts of mineral working can be achieved through progressive restoration, siting of processing plant away from sensitive land uses, imposing conditions to limit vehicle movements, hours of working, noise and dust, and through landscaping to minimise visual impacts (4.13.29);

• Mineral working should not be permitted if it would cause unacceptable harm to important environmental assets, though the degree of protection given to such assets may vary according to their relative importance (4.13.33 – 4.13.34).

Baseline Evidence - Update

6.5 The following new evidence has become available since the Study was completed:

• The Black Country Core Strategy Phase One Environmental Infrastructure Guidance (2009), carried out by the Black Country authorities, has provided up-to-date mapping of key environmental assets in the Black Country;

• The Black Country Core Strategy Strategic Flood Risk Assessment (February 2009) by Jacobs Babtie – final version is now complete and this has defined areas at risk of flooding in the Black Country;
6.6 Mineral working is a highly regulated activity. Working is controlled in a number of ways, not only through the planning system but also through pollution control legislation and also by conditions imposed on working permits. Action can be taken against operators who breach the conditions of their permits.

6.7 In the Black Country, the most important unsterilised mineral resources can be found in the Green Belt areas. Although they are generally not sterilised by non-mineral developments, these resources are not without constraints. For example, they may be close to the edge of the built-up area, within sites designated for their importance for biodiversity/geodiversity, or near to areas containing important water resources.

6.8 When defining areas of search for mineral working, the most sensitive areas (including SSSIs) have been excluded. Constraints affecting particular resource areas and areas of search are highlighted in the minerals policies (MIN2 – MIN4), and mineral working proposals will be required to demonstrate that potentially harmful effects have been addressed. To minimise the cumulative effects of mineral working on particular areas, new mineral extraction proposals within the areas of search will also be required to demonstrate that progress is being made on restoring areas already worked.

6.9 It is also recognised that requirements for restoration programmes should support the overall spatial strategy for the Black Country. As the Black Country Minerals Study has noted, the proximity of mineral resource areas to the urban areas provides opportunities for mineral working to make a positive contribution towards the Black Country’s environmental infrastructure, through appropriate landscaping and restoration schemes which are designed to reinforce and enhance local character and provide opportunities for biodiversity, geodiversity, and outdoor sport and recreation which might not happen otherwise. In some
cases, mineral working may also provide opportunities for new archaeological investigations, adding to our knowledge of the past.

6.10 The potential negative impacts of mineral working are well understood and in general terms these are covered in national policy guidance. MPS2: Controlling and Mitigating the Environmental Effects of Mineral Extraction in England covers the use of planning conditions, potential impacts on local communities, and how to manage impacts through the use of Environmental Management Standards. There are also annexes on Noise and Dust which explain how these impacts should be addressed. There is no need to repeat these requirements in the Black Country Core Strategy. Any policy setting out general requirements for mineral working must therefore focus on addressing issues of particular local concern.

6.8 There are other Core Strategy policies covering environmental issues, such as environmental infrastructure (CSP3), nature conservation (ENV1), historic character and local distinctiveness (ENV2), design quality (ENV3), canals (ENV4), flood risk, sustainable drainage systems and urban heat island (ENV5), and open space, sport and recreation (ENV6). These policies are underpinned by the updated baseline evidence on environmental infrastructure, sports and recreation infrastructure, flood risk and water resources.

6.9 However, it was felt that there was a need for a general policy on mineral development proposals, setting out the requirements that proposals should address, such as the information that should be included with applications, issues of particular local concern which need to be addressed, and the criteria which will be used for assessing new proposals.

Stakeholder Engagement

- Environmental bodies have highlighted the potential environmental and amenity impacts of mineral working and have argued that it should be minimised as far as possible;
• The Black Country Geodiversity Partnership has commented that the minerals policy should provide opportunities to promote geodiversity/create new geological exposures;

• Councillors representing Aldridge and Walsall Wood have objected to further quarrying and landfilling in the Aldridge and Stonnall areas of Walsall, due to impacts on the amenity of local communities and the local highway network.

Developing Guidance for New Mineral Developments

6.10 The Government Office for the West Midlands has advised that policies in the Core Strategy should be locally specific and avoid repeating national policy guidance. The minerals policies should therefore reflect the overall strategy for the area and include policy criteria directly linked to the strategy for the area, and aimed at addressing specific issues of local concern, rather than merely repeating the general guidance that applies nationally, or repeating the guidance contained elsewhere in the Core Strategy.

6.11 The authorities have considered the Black Country Minerals Study recommendation that “community buffer zones” should be defined around existing and potential mineral working areas. However, we cannot be prescriptive about this, as it is possible for mineral working to take place close to sensitive areas, provided that adequate mitigation is in place. The key recommendation in national policy guidance is that distance separation should be “adequate” (see MPS2, paragraphs 24 – 29). The guidance also makes it clear that MPAs are entitled to reject proposals which are so close to residential properties that harmful effects cannot be adequately mitigated.

6.12 In the Black Country there is a potential tension between the need to allow mineral production to support regional requirements and development within the Growth Network, and the objectives of environmental transformation and retention of population/attracting new AB households. These are two of the
objectives for the Black Country in the RSS, and are key principles underpinning the whole of the Core Strategy.

6.13 One of the main attractions of the Black Country as a place to live is that so much of its peripheral areas are still “green,” with high quality suburban and semi-rural areas on the eastern side of Walsall and on the southern and western fringes of Dudley. This is precisely the kind of environment where AB households want to live. They are also the areas which contain the Black Country’s most important unsterilised mineral resources, and which are likely to be the focus for future mineral working.

6.14 Although it is temporary, the impact of mineral working can extend over several years in the case of sand and gravel working and much longer in the case of extraction of clay. Nevertheless, there is a lot that can be done to address visual impacts through appropriate landscaping and screening of working areas. For example, Walsall’s existing quarries are generally very well screened from the surrounding areas by landscaping, and are not highly visible from adjacent roads or residential areas. There is a Proposed Change to the guidance on enclosure of mineral working operations in the Environmental and Amenity Issues section of Policy MIN5, to reflect comments by Cemex at the publication stage.

6.15 The main objections to mineral working and mineral working proposals in the Black Country tend to be:

- Noise and disturbance from HGV movements on the highway network;

- Impact of HGV movements on congestion in parts of the highway network (particularly Shire Oak junction on the A451 in Walsall)

- Associated problems such as dust and debris deposited onto the roads and into the drains;
- Potential visual impacts;
- Potential harm to the Green Belt and nature conservation areas;
- Cumulative impacts on areas already affected.

6.16 To address these concerns, it is vital that future mineral working is controlled and steered towards the areas where it is likely to cause least environmental damage while operations are underway, and that every effort is made to minimise the visual and other impacts of working. It is equally important to maximise the potential benefits of mineral working which can be achieved through advance planting and final restoration to after-uses which will complement the environmental infrastructure.

6.17 Policy MIN5 sets out general requirements for mineral applications, to ensure that they include all the information needed to understand the positive and negative aspects of the proposal and to make a balanced decision. Proposals are also required to address key issues emerging from the technical evidence on minerals, and from other mineral policy areas, in particular:

- Waste minimisation and mineral safeguarding
- Contribution towards mineral supply requirements and targets
- Ground stability and geotechnical risks
- Impacts on flood risk and water resources
- Impacts on the environment and local character
- Impacts on neighbouring uses
- Impacts on the highway network and scope for transporting material by rail or canal.

Where relevant there are cross-references to other Core Strategy policies.

6.18 The final part of the policy provides a series of criteria against which proposals may be assessed. These relate directly to the overall spatial strategy and to local concerns, and are as follows:
• Consistency with minerals strategy (spatial objective 10)
• Contribution towards local economic/ regeneration objectives
• Contribution towards environmental transformation objectives
• Potential for co-location/ synergies
• Impact on neighbouring uses
• Impact on highway/ transport network

Appendix 4 sets out some key considerations that authorities might take into account when assessing proposals against these criteria.
Bibliography

Note: The URLs below were correct at the time this report was prepared, but may be subject to change.

<table>
<thead>
<tr>
<th>Policy Documents on Minerals and Related Subjects</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
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<tr>
<td><strong>National Policy Guidance</strong></td>
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<td>Resource</td>
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<tr>
<td><strong>Regional Spatial Strategy and Regional Spatial Strategy Revision</strong></td>
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<tr>
<td>Regional Planning Guidance for the West Midlands (RPG11) (January 2008), Government Office for the West Midlands</td>
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<tr>
<td>Regional Planning Guidance for the West Midlands (RPG11): Phase 2 Revision Preferred Option (December 2007), WMRA</td>
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<tr>
<td>Regional Planning Guidance for the West Midlands (RPG11): Phase 3 Revision Options (July 2009), WMRA</td>
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<tr>
<td><strong>Black Country Local Development Frameworks and Other Local Policy Guidance</strong></td>
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<tr>
<td>Sandwell Unitary Development Plan 2004 (April 2004), Sandwell MBC</td>
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<td>Title</td>
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<tr>
<td><strong>General</strong></td>
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<tr>
<td>(Previous yearbooks are also available to download from the UK Minerals website)</td>
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<tr>
<td><strong>Geological/ Mineral Resource Information</strong></td>
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<tr>
<td>A Geological Background for Planning and Development in the Black Country: Technical Report WA/92/33 (1992), British Geological Survey - covers all of Dudley and Sandwell but only parts of Walsall and Wolverhampton</td>
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<tr>
<td>1:50,000 Solid and Drift Geology Map and Memoir covering Lichfield (E154) (1909/19), British Geological Survey</td>
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<tr>
<td>*Covers the northern parts of Walsall</td>
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<tr>
<td>1:50,000 Solid and Drift Geology Map and Memoir covering Wolverhampton and Telford District (E153) (2001/02), British Geological Survey</td>
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<td>*Covers the northern parts of Wolverhampton</td>
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<td>Mineral Safeguarding</td>
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<th>Aggregates – General</th>
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<th>Primary Aggregates</th>
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<th>West Midlands Sub-Regional Aggregates Apportionment Review</th>
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<tr>
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<td>WMRSS Update: Phase 3 Special&lt;br&gt;(November 2009), WMRA</td>
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<td><strong>Secondary/ Recycled Aggregates</strong></td>
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<tr>
<td>West Midlands Regional Aggregates Working Party (RAWP) Annual Reports 2004 – 2007 (N.B. 2008 report will be available shortly on the same website)</td>
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<td><strong>Bricks and Brick Clay</strong></td>
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<tr>
<td>Brick – The Case for Sustainability (undated), Brick Development Association</td>
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### Coal and Coal Based Energy Technologies

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<tr>
<th>Title</th>
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<tr>
<td>(Summary Map is not available online and we have not been able to obtain a copy)</td>
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<td>Mineral Profile: Coal (February 2007), BGS</td>
<td><a href="http://www.bgs.ac.uk/mineralsuk/search/downloadSearch.cfc?method=viewDownloadsByCategory">http://www.bgs.ac.uk/mineralsuk/search/downloadSearch.cfc?method=viewDownloadsByCategory</a></td>
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<tr>
<td>Surface Mining and Coal Resource Areas: 1:250,000 map of West Midlands Region and 1:50,000 maps of Dudley, Sandwell, Walsall and Wolverhampton (July 2008), Coal Authority</td>
<td>NOT AVAILABLE ONLINE – AVAILABLE FROM THE COAL AUTHORITY (MAY BE A CHARGE)</td>
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<tr>
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<td>The Black Country Strategic Flood Risk Assessment (SFRA) (February 2009), Jacobs</td>
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<td><a href="http://blackcountrycorestrategy.dudley.gov.uk/evidenceesa">http://blackcountrycorestrategy.dudley.gov.uk/evidenceesa</a></td>
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<td>(N.B. only the latest two reports are available online, earlier reports are available from Walsall MBC)</td>
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## Glossary

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<tr>
<th>Abbreviation</th>
<th>Term</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>Aggregates/ Aggregate Minerals</td>
<td>Hard, granular minerals used for building and engineering purposes either on their own or with a “binder” (e.g. lime or cement) to create other building products such as asphalt or mortar. The two main types of aggregates are sands and gravels and crushed rock. Aggregates can be produced from primary, secondary or recycled sources.</td>
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<tr>
<td>Alternatives</td>
<td>General term used to describe alternatives to primary aggregates, such as secondary and recycled aggregates.</td>
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<tr>
<td>AMR Annual Monitoring Report</td>
<td>A report which each WPA is required to produce every year by 31 December, with details of progress on implementing LDF/MWDF waste policies. There are two Core Output Indicators on waste that all WPAs must monitor, one relating to MSW management and one relating to new waste management capacity coming forward.</td>
<td></td>
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<tr>
<td>Advantage West Midlands</td>
<td>The regional development agency for the West Midlands, responsible for the regional economic strategy. From April 2010, they will become part of the regional planning body (the other element will be the Local Authority Leaders’ Board).</td>
<td></td>
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<tr>
<td>Blue Bricks</td>
<td>See Engineering Bricks.</td>
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<tr>
<td>BAA British Aggregates Association</td>
<td>Trade association for independent aggregate quarry operators. Has fewer members than the Mineral Products Association and there are currently no BAA members within the Black Country.</td>
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<tr>
<td>BCC British Ceramics Confederation</td>
<td>The trade association for the UK ceramics industry. Members include manufacturers of bricks, tiles, clay pipes, china, industrial ceramics and sanitary ware. Most of the brick manufacturers active in the Black Country are members.</td>
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<tr>
<td>BDA</td>
<td>Brick Development Association</td>
<td>The main trade association for UK and Irish brick manufacturers.</td>
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<tr>
<td>BGS</td>
<td>British Geological Survey</td>
<td>The BGS is the UK’s main centre for research into geology and earth science. They provide technical information and support on geology, mineral resources and related issues to the Government, to MPAs, the private sector and the general public. The BGS is the main source of mineral resource information for land use planning, and has also produced a range of mineral commodity fact sheets, profiles and other technical information.</td>
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<tr>
<td></td>
<td>Brick Clay</td>
<td>Sometimes referred to as Clay and Shale. Clays are sedimentary mudstones of different ages and compositions, which form a fine-grained impermeable earth which can be moulded when wet and fired to produce structural clay products such as bricks, tiles, pavers and pipes. Not all clays are suitable for making these products. The main clays occurring in the Black Country which are used to make bricks are from the Etruria Formation.</td>
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<td></td>
<td>Buff Clays</td>
<td>Brick clays with a yellow or cream colour, such as fireclay. Other types of clay with a similar colour do not occur in the Black Country.</td>
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<tr>
<td></td>
<td>Clay and Shale</td>
<td>See Brick Clay.</td>
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<tr>
<td></td>
<td>Coal</td>
<td>Sedimentary rock made of fossilised plant remains. Coal occurs in layers, or seams, of various thicknesses. The coal resources in the Black Country form part of the South Staffordshire Coalfield and were extensively exploited in the past.</td>
</tr>
<tr>
<td>CBM</td>
<td>Coal Bed Methane</td>
<td>Methane gas present within coal seams which was trapped within the coal when it was formed, or into pore spaces around the coal seam. Where significant amounts of CBM exist, these can be extracted by drilling, and the recovered gas can be used as an energy source.</td>
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<tr>
<td>-</td>
<td>Coal Measures</td>
<td>Deposits of sedimentary rock containing seams of coal, fireclay and other minerals.</td>
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<tr>
<td>-</td>
<td>Coal Authority</td>
<td>The Coal Authority is the statutory body responsible for licensing coal mining operations and addressing the legacy of previous mining activities. They are a statutory consultee on planning applications affecting coal resources and on Development Plan Documents in areas containing coal resources.</td>
</tr>
<tr>
<td>CD&amp;EW</td>
<td>Construction, Demolition &amp; Excavation Waste</td>
<td>Waste arising from the development and redevelopment process, i.e. as a result of building, engineering, demolition and land remediation.</td>
</tr>
<tr>
<td>-</td>
<td>Common Bricks</td>
<td>Bricks of a lower quality than facing or engineering bricks, usually used in the parts of a building where they are not visible.</td>
</tr>
<tr>
<td>-</td>
<td>Crushed Rock</td>
<td>Aggregate minerals formed by the crushing and grading of hard rocks. They are used as a constructional fill material as well as to make products such as concrete, gravel surface dressings, roadstone and rail ballast.</td>
</tr>
<tr>
<td>DPD</td>
<td>Development Plan Document</td>
<td>A land use plan prepared by a strategic or local planning authority, which forms part of the authority’s LDF or MDF/ MWDF. Once adopted, a DPD becomes part of the statutory development plan for the area it covers, and decisions on planning applications should be in accordance with it. The Black Country Core Strategy is a DPD.</td>
</tr>
<tr>
<td>-</td>
<td>Dolerite</td>
<td>A type of basalt - an igneous rock formed by cooling of hot molten magma from ancient volcanic activity. Dolerite occurs as outcrops in various parts of the Black Country and the local material is often referred to as Rowley Rag.</td>
</tr>
<tr>
<td>End Use</td>
<td>A new use for a former quarry site which has been restored. Mineral working permissions will often include conditions specifying the end uses that are suitable, and will require restoration to a standard which will support the uses specified. Most Black Country quarries are in the Green Belt, which limits the kinds of end uses which can be implemented.</td>
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<tr>
<td>Engineering Bricks</td>
<td>Also known as Blue Bricks or Staffordshire Blue Bricks. Facing bricks made to a heavy-duty/high performance specification. They are made from iron-rich red clays such as those from the Etruria Formation in the Black Country. The distinctive dark grey-blue colour is a result of reducing the iron in the clay, by firing the bricks at very high temperatures.</td>
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<tr>
<td>EA</td>
<td>Environment Agency</td>
<td>The Environment Agency is the statutory body responsible for licensing and permitting landfill sites and many other waste management facilities which are subject to regulation, and for regulating water quality and flood risk. They are a statutory consultee on Local Development Documents and planning applications in areas at risk of flooding, or which may affect water quality.</td>
</tr>
<tr>
<td>EH</td>
<td>English Heritage</td>
<td>English Heritage is the Government’s adviser on the historic environment. They are a statutory consultee on Local Development Documents and planning applications affecting historic sites of national and international importance, such as Scheduled Ancient Monuments and Grade I and II* listed buildings. They are currently collaborating with the BGS on a Strategic Stone Study covering each county area in England.</td>
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<tr>
<td></td>
<td>Enville Formation</td>
<td>A formation of mudstone which occurs in parts of Staffordshire and the Black Country. The clays within this formation are not generally regarded as being suitable for brick manufacture.</td>
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<tr>
<td></td>
<td>Etruria Formation</td>
<td>A formation of mudstone which occurs in parts of Staffordshire and the Black Country. This formation contains brick clays, notably Etruria Marl, which is a highly prized but nationally scarce type of clay.</td>
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<tr>
<td></td>
<td>Etruria Marl</td>
<td>A nationally scarce type of red clay found in Staffordshire and in parts of Dudley and Walsall, and used to make high-quality facing bricks.</td>
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<td></td>
<td>Facing Bricks</td>
<td>Bricks designed to be used as external facing on buildings, often having decorative finishes such as variegated colours and textures.</td>
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<td></td>
<td>Fireclay</td>
<td>Sedimentary mudstones (also called “seatearths” occurring beneath almost all coal seams. They are fossil soils, on which the coal-forming vegetation once grew. Fireclay has the ability to resist heat, and was exploited in the past for making “refractories” to line kilns and furnaces. Today fireclay is mainly used in the manufacture of high-quality facing bricks.</td>
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<td></td>
<td>Gornal Stone</td>
<td>A type of limestone occurring in the Gornal and Sedgley areas of Dudley, which was exploited as a building stone. There are examples of historic buildings and structures built of Gornal Stone in Gornal, Sedgley and Dudley Town Centre.</td>
</tr>
<tr>
<td>GO-WM</td>
<td>Government Office for the West Midlands</td>
<td>The Government office responsible for implementing national policy in the West Midlands region. The GO-WM advises Government on planning policy issues affecting the area, and advises MPAs on local interpretation of national policy guidance.</td>
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<td></td>
<td>Halesowen Sandstone</td>
<td>Red sandstone used in the past as a building stone. This stone was quarried from and used in the Halesowen area of Dudley.</td>
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<tr>
<td><strong>Keele Formation</strong></td>
<td>A formation of mudstone which occurs in parts of Staffordshire and the Black Country. The clays within this formation are not generally regarded as being suitable for brick manufacture.</td>
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<tr>
<td><strong>Landfill</strong></td>
<td>The usual method of restoring former quarries, involving depositing of inert waste materials or pre-treated waste residues. Most landfill sites are former quarries where the waste is used to fill the void and help restore the site to a beneficial end-use. Restoration by landfilling with waste is often a condition of the original mineral permission.</td>
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<tr>
<td><strong>Limestone</strong></td>
<td>A soft calcium-based stone formed from the fossilised remains of marine organisms. Limestone occurs extensively across the Black Country, and was exploited in the past both for hydraulic lime (used to make cement and mortar) and as a building stone. The remains of former limestone workings can still be seen at the Wren’s Nest to the east of Dudley Town Centre, which is a National Nature Reserve.</td>
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<tr>
<td><strong>LDD Local Development Document</strong></td>
<td>Any plan that forms part of a local or strategic authority’s LDF or MDF/MWDF. There are three types of LDD: Statements of Community Involvement (SCI), Development Plan Documents (DPD) and Supplementary Planning Documents (SPD).</td>
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<tr>
<td><strong>LDF Local Development Framework</strong></td>
<td>The framework for spatial planning within local authority or unitary authority areas. The “folder” containing all the authority’s spatial plans for minerals and other key issues, including the Core Strategy, Site Allocations Document and other Local Development Documents.</td>
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<tr>
<td><strong>Mercia Mudstone</strong></td>
<td>A type of mudstone containing red clays used for brick-making. This type of clay does not occur in the Black Country.</td>
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<tr>
<td><strong>MDF</strong></td>
<td><strong>Mineral Development Framework</strong></td>
<td>The equivalent of a LDF in county council areas, covering plans for minerals. This is the “folder” containing all the authority's spatial plans for minerals, including the Core Strategy and other Local Development Documents. Some Counties have a combined MWDF covering minerals and waste.</td>
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<tr>
<td><strong>Mothballed/ Mothballing</strong></td>
<td>Temporary closure of a brick or tile manufacturing plant. Two works supplied with Etruria Marl from Black Country sources (Sedgley Works and Stourbridge Works) are currently in this position.</td>
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<tr>
<td><strong>MPA/ MPAs</strong></td>
<td><strong>Mineral Planning Authority/ Authorities</strong></td>
<td>Strategic authorities (county councils and unitary authorities) with a statutory duty/ responsibility for the spatial planning of minerals within their area through LDFs and MDFs/ MWDFs.</td>
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<tr>
<td><strong>MPA</strong></td>
<td><strong>Mineral Products Association</strong></td>
<td>Formerly the Quarry Products Association (QPA). The main trade association for the aggregates, asphalt, cement, concrete, lime, mortar, and silica sand industries. The main companies involved in quarrying for aggregates or aggregates processing, including Cemex, JPE Aggregates, Midland Quarry Products and Tarmac, are members.</td>
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<tr>
<td><strong>Mineral Related Infrastructure</strong></td>
<td>Facilities involved in the processing, handling, storage or transportation of minerals and mineral products. Examples include recycling facilities, coating plants, cement works and rail freight facilities.</td>
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<td><strong>Mineral Resources</strong></td>
<td>See Resources.</td>
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<tr>
<td><strong>Mineral Safeguarding</strong></td>
<td>The protection or safeguarding of important mineral resources and mineral-related infrastructure from sterilisation or encroachment by incompatible non-mineral built developments or uses.</td>
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<tr>
<td>MSA</td>
<td>Mineral Safeguarding Area</td>
<td>An area defined around mineral resources which are or may become of economic importance. Mineral planning authorities with important mineral resources are required to safeguard these resources against needless sterilisation by non-mineral uses, by defining MSAs in their LDF or MDF/ MWDF.</td>
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<tr>
<td>MWDF</td>
<td>Minerals and Waste Development Framework</td>
<td>See MDF.</td>
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<td>-</td>
<td>Natural Building Stone</td>
<td>Stone used as a traditional building material. The most important natural stone resources used for building in the Black Country are: Rowley Rag (dolerite), Gornal Stone (limestone) and Halesowen Sandstone.</td>
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<tr>
<td>NE</td>
<td>Natural England</td>
<td>Natural England is the public body responsible for protecting and improving the natural environment. They are a statutory consultee on Local Development Documents and planning applications affecting sites of national and international importance for biodiversity and geodiversity, such as SACs and SSSIs.</td>
</tr>
<tr>
<td>-</td>
<td>Paving Bricks/ Pavers</td>
<td>Bricks used for flooring rather than for building walls.</td>
</tr>
<tr>
<td>-</td>
<td>Permitted Reserves</td>
<td>The term used to describe the quantity of mineral present within an area covered by a mineral planning permission, i.e. mineral resources which have permission to be worked. Usually expressed in tonnes or cubic metres.</td>
</tr>
<tr>
<td>-</td>
<td>Primary Aggregates</td>
<td>Virgin aggregate materials, naturally occurring mineral deposits quarried from the ground (land-won) or dredged from the sea bed (marine).</td>
</tr>
<tr>
<td>-</td>
<td>Prior Extraction</td>
<td>The term used to describe the extraction of mineral resources in advance of a new non-mineral development. Prior extraction of minerals is encouraged in national policy guidance and in the Black Country UDPs, as a means of safeguarding mineral resources against needless sterilisation.</td>
</tr>
<tr>
<td>-</td>
<td>Proposals Map</td>
<td>A map showing all site specific proposals and designations in the LDF/ MDF/ MWDF.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
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</tr>
<tr>
<td><strong>QPA</strong></td>
<td>Quarry Products Association</td>
<td>See Mineral Products Association (MPA).</td>
</tr>
<tr>
<td><strong>RAWP</strong></td>
<td>Regional Aggregates Working Party</td>
<td>Technical advisory body on aggregates. There is a RAWP for each English region, made up of representatives from Mineral Planning Authorities (MPAs), the aggregates industry and other statutory consultees. The RAWPs undertake annual surveys of aggregates supplies and reserves, and provide technical advice on aggregates issues to the Government and to the regional planning body (RPB).</td>
</tr>
<tr>
<td>-</td>
<td>Recycled Aggregates</td>
<td>Aggregates obtained from recycling waste. Most recycled aggregates are produced from construction, demolition and excavation wastes (CD&amp;EW), but recycled materials also include road planings obtained from resurfacing and rail ballast.</td>
</tr>
<tr>
<td>-</td>
<td>Red Clays</td>
<td>Brick clays with a red or orange colour (due to high iron content), such as clays from the Etruria Formation which occur in the Black Country. Some red clays (e.g. from Mercia Mudstone) do not occur in the Black Country.</td>
</tr>
<tr>
<td>-</td>
<td>Reserves</td>
<td>See Permitted Reserves.</td>
</tr>
<tr>
<td>-</td>
<td>Resources</td>
<td>The term used to describe the quantity of mineral present within a given area, usually expressed in tonnes or cubic metres.</td>
</tr>
<tr>
<td>-</td>
<td>Restoration</td>
<td>What happens to a quarry when mineral extraction ceases. Mineral permissions normally include conditions requiring a restoration programme to be agreed with the MPA and for this to be implemented once quarrying has finished. Restoration is often achieved through filling with waste and then capping with suitable materials. Where the underlying geology will support this, restoration can also involve creation of water features.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Rowley Rag</strong></td>
<td>A hard black dolerite stone occurring as outcrops in various parts of the Black Country, but mainly in Rowley Regis in Sandwell. In the past it was widely used to make stone setts and kerbstones, and more rarely, as a building material. The material quarried more recently has been used as aggregate.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Sands and Gravels</strong></td>
<td>Aggregate minerals which can be either land-won or marine-dredged. Land-won sands and gravels can be quarried from either sandstone bedrock (as in the Black Country) or from alluvial deposits. They are used as a constructional fill and bedding material as well as to make products such as concrete, asphalt and bricks.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Saved Plan/ Policy</strong></td>
<td>An old-style development plan or development plan policy pre-dating the 2004 planning system, which has been “saved” for a temporary period until it is replaced by policies in a new DPD. Most of the UDPs for Dudley, Sandwell, Walsall and Wolverhampton have been “saved.” Some “saved” policies will be superseded by the Black Country Core Strategy once this is adopted.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Secondary Aggregates</strong></td>
<td>Aggregates obtained as a by-product of other quarrying and mining operations, such as clay waste, and aggregates obtained as a by-product of other industrial processes such as blast furnace slag, incinerator ash and spent foundry sand.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Stakeholder</strong></td>
<td>A term used to describe interested parties who are involved in the spatial planning process.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td><strong>Sterilisation</strong></td>
<td>This is what has happened to the mineral resources underlying urban areas. Buildings and other structures on the surface of the ground prevent mineral working from taking place, so the mineral resources underlying them are said to be “sterilised.”</td>
</tr>
<tr>
<td><strong>SPD</strong></td>
<td>Supplementary Planning Document</td>
<td>A land use plan forming part of a strategic or local planning authority’s LDF or MDF/ MWDF, which supplements the guidance in an existing “saved” development plan or a DPD.</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>SWMP</strong></td>
<td>Site Waste Management Plan</td>
<td>A plan for a large remediation, demolition or building project, setting out how and where CD&amp;EW is managed – from March 2008 it has been a statutory requirement for clients of all projects with a total cost of £300,000 or more to compile and maintain a SWMP.</td>
</tr>
<tr>
<td><strong>-</strong></td>
<td>Staffordshire Blue Bricks</td>
<td>See Engineering Bricks.</td>
</tr>
<tr>
<td><strong>TPA</strong></td>
<td>Tonnes Per Annum</td>
<td>This is the normal way of measuring mineral production, or the operational throughout/ capacity of waste management infrastructure.</td>
</tr>
<tr>
<td><strong>UDP</strong></td>
<td>Unitary Development Plan</td>
<td>An old-style single development plan which pre-dates the 2004 reformed planning system. Most of the UDPs for Dudley, Sandwell, Walsall and Wolverhampton have been “saved.” The policies still in force form part of the authorities’ LDFs.</td>
</tr>
<tr>
<td><strong>UCG</strong></td>
<td>Underground Coal Gasification</td>
<td>An emerging technology involving controlled combustion of coal seams by the injection of various gases. The gases can then be recovered by drilling and used to generate electricity or be converted into a liquid fuel.</td>
</tr>
<tr>
<td><strong>WMRA</strong></td>
<td>West Midlands Regional Assembly</td>
<td>Currently the regional planning body for the West Midlands, responsible for regional planning guidance. In April 2010, regional assemblies will be abolished and the regional planning body will be AWM and the Local Authority Leaders’ Board.</td>
</tr>
<tr>
<td><strong>WMRAWP</strong></td>
<td>West Midlands Regional Aggregates Working Party</td>
<td>The RAWP covering the West Midlands region.</td>
</tr>
</tbody>
</table>