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SAD & AAP Minerals Project

Review of Evidence Base for Minerals and Viability and Deliverability of Mineral Development Options



July 2015

Amec Foster Wheeler Environment
& Infrastructure UK Limited



Report for

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1 Introduction

1.1 Background

Walsall Council is preparing two development plan documents that will form part of the Local Plan for Walsall, which when adopted will replace most of the 'saved' policies in the adopted 2005 Walsall Unitary Development Plan (UDP). The two new plans are an Area Action Plan (AAP) for Walsall Town Centre and a Site Allocation Document (SAD), covering most of the rest of the Borough. The SAD will not, however, include the District Centres of Aldridge, Bloxwich, Brownhills, Darlaston and Willenhall, which will be the subject of separate AAPs to be prepared at a later date.

The starting point for these emerging site-specific plans is the Black County Core Strategy (BCCS), adopted in February 2011, and which covers the whole of the Black Country, i.e. the administrative areas of Walsall, Dudley, Sandwell, and Wolverhampton. The AAP and SAD are being prepared in a three stage process. An Issues and Options Report was published and consulted upon between April and June 2013. Preferred Option Reports are now being prepared and subject to the outcome of the consultation on these in the summer of 2015, it is proposed a Publication Document will be published for a final round of public consultation and submitted for examination in 2016.

The Council has commissioned a suite of studies to examine the viability and delivery of development on specific sites and to demonstrate that the SAD and AAP will be able to deliver the BCCS requirements. As such, Amec Foster Wheeler Environment & Infrastructure UK Limited (hereafter referred to as Amec Foster Wheeler) has been commissioned to deliver the SAD & AAP Minerals Project.

1.2 Purpose of this Report

This document reports on the review of the evidence base for minerals and viability and deliverability of mineral development options undertaken as part of the development of the Walsall SAD and Town Centre AAP. As such, the document sets out the following:

- ▶ The methodology and approach applied in undertaking the SAD & AAP Minerals Project;
- ▶ The findings of the review;
- ▶ Conclusions and recommended actions for the Council to take at the next stages of plan preparation, highlighting any significant issues that could affect 'soundness';
- ▶ Reference to digital mapping; and
- ▶ Area and/or site specific assessments that seek to advise on the deliverability and viability of the options identified by the Council.

1.3 Report Structure

The report is structured to reflect the different elements which together comprise the review of the baseline evidence and viability and delivery assessment for SAD & AAP Minerals Project, with each section addressing a specific element both in terms of the methodology and approach applied as well as the findings of the review. As such, the report is structured as follows:

- ▶ Adequacy of baseline evidence on the extent of mineral resources in Walsall and identifying any evidence gaps likely to impact on soundness;
- ▶ Soundness of the Council's approach towards identification, evaluation and appraisal of options for mineral development;



- ▶ Likely economic viability and deliverability of mineral extraction projects over the lifetime of the SAD and AAP and beyond, within the 9 potential areas of search and 7 potential site allocations identified by the Council;
- ▶ Likely viability and deliverability of mineral extraction projects elsewhere in Walsall over the lifetime of the SAD and AAP and beyond;
- ▶ Likely viability and delivery of three potential aggregates recycling sites identified by the Council;
- ▶ Likely viability and delivery of new aggregate recycling facilities elsewhere in Walsall;
- ▶ Potential for 'prior extraction' of minerals in advance of development;
- ▶ Potential for 'strategic stockpiling' of fireclay within the proposed Yorks Bridge area of search and/or other locations in Walsall, other than at existing brickworks and clay extraction sites;
- ▶ Likelihood of viable proposals for extraction of coal bed methane and/or shale gas coming forward in Walsall within the plan period; and
- ▶ Overall conclusions and summary of findings.



2 Assessment of Baseline Evidence

2.1 Introduction

This section seeks to review the minerals baseline evidence with a view to identifying any critical gaps likely to impact on the soundness of the SAD and AAP.

2.2 Methodology and Approach

Amec Foster Wheeler has undertaken a focused review of relevant policy on minerals extraction and environmental protection as well as good practice taking into account relevant policy and guidance at the European, national, regional and local level. This has included:

- ▶ A full review of national planning policy and legislation where they are relevant to mineral extraction and site selection; and
- ▶ A review of related policy and legislation such as Environment Agency policies that could impact on mineral extraction and site selection.

Due consideration has been given to emerging guidance and good practice advice. Furthermore, consideration has also been had to the work undertaken to date on existing and emerging local policy in the Black Country and Walsall (i.e. Black Country Core Strategy and emerging SAD and AAP), specifically any previous site assessment work and associated sustainability appraisal(s) to ensure a consistent approach throughout the preparation of the Walsall Local Plan documentation.

In reviewing the SAD and AAP minerals evidence base, the following documents have been reviewed by Amec Foster Wheeler:

- ▶ Black Country Core Strategy (BCCS) (adopted February 2011) and supporting evidence, including Black Country Minerals Study (2007) by RPS and Minerals Background Paper 2 (2010) prepared jointly by the Black Country Authorities;
- ▶ SAD and AAP Issues and Options consultation documents and appendices (April 2013);
- ▶ Call for Sites documentation and Council's response from 2011 and 2012 and any addendums thereof; and
- ▶ Variety of information provided by the Council on permitted and potential mineral development options including planning application histories, liaison with operators and/or neighbouring authorities, and digital data as appropriate.

2.3 Review Findings

The review of the existing mineral baseline evidence has found that the Council has sought to be very thorough in the preparation of their evidence base. The information upon which they are seeking to consult in the preparation of the SAD and AAP documents is published on their website and new evidence is being added as and when it becomes available¹. In terms of the emerging SAD and AAP, the wider policy context for the Local Plan is set out in Chapter 2 of the SAD Issues and Options document and that in relation to minerals is summarised in the minerals chapter in Section 9.2.

Going forward, and based both on a comparison with local plan preparation approaches taken by other local authorities and Amec Foster Wheeler's experience in providing assistance in the preparation of minerals specific local plan documents, the Council does not appear at present to have a specific minerals based topic evidence paper to support the emerging SAD and AAP. As such, we have sought to further support the

¹ http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_plans/evidence.htm

work undertaken by the Council to date and set out a more detailed minerals planning policy context below (Section 2.4), and an updated summary of the baseline evidence for each topic in Chapters 5 to 10.

Paragraph 145 of the NPPF requires all mineral planning authorities to prepare an annual Local Aggregate Assessment (LAA), either individually or jointly in agreement with other mineral planning authorities, as part of planning for a steady and adequate supply of aggregates. At the time of writing this report, no LAA had yet been prepared for Walsall. Together with the other metropolitan authorities in the West Midlands, Walsall Council are preparing a Joint LAA, progress on which has been delayed due to a lack of resources/capacity. The lack of an LAA is not considered critical, in that the findings of this study on sand and gravel as well as aggregates recycling can be reflected in the LAA in due course.

2.4 Planning Policy Context

The extraction of minerals in Walsall is influenced by a range of national, regional and local policies and strategies which are considered in this section. Due to their nature, minerals can only be extracted where they are found and it is important to plan appropriately for their extraction to ensure a steady and adequate supply. There are a number of policies and guidance that have spatial implications for the provision of a steady and adequate supply of minerals. These stem from national planning policies, notably the National Planning Policy Framework (NPPF) and national guidelines on future aggregates provision. These spatial requirements need to be considered in policy formulation, the safeguarding of existing minerals reserves, and the identification of potential future mineral resources.

National Planning Policy Framework

Overview

The Government published its National Planning Policy Framework (NPPF) on 27 March 2012 and sets out the Government's planning policies for England and how these are expected to be applied. This document forms a key part of the Government's reforms to make the planning system less complex and more accessible, and to promote sustainable growth. The NPPF replaced the series of Planning Policy Statements, and Planning Policy Guidance, as well as all of the former Mineral Planning Statements and Mineral Planning Guidance. The National Planning Policy on Waste, to be read alongside the NPPF, was issued in October 2014 and replaced the former Planning Policy Statement 10. As well as minerals specific policy, which is addressed in NPPF Section 13 'Facilitating the sustainable use of minerals' (paragraphs 142 to 149), those sections of the NPPF that are of most relevance to minerals development are outlined below.

Achieving Sustainable Development

The NPPF outlines that the purpose of the planning system is to contribute to the achievement of sustainable development and paragraph 7 outlines the three dimensions thereof: economic, social and environmental. All three elements are of relevance to minerals development, nevertheless the environmental role is of specific interest stating that the planning system should contribute to:

"...protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy."

Conserving or Enhancing the Natural Environment

NPPF Section 11 (paragraphs 109 to 125) outlines the relevant planning policy in relation to biodiversity. Paragraph 109 outlines how the planning system should contribute to and enhance the natural and local environment by:

- ▶ *"protecting and enhancing valued landscapes, geological conservation interests and soils;*
- ▶ *recognising the wider benefits of ecosystem services;*

- ▶ *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- ▶ *preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- ▶ *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."*

In terms of preparing local plans, the NPPG states that the aim should be to minimise pollution and other adverse effects on the local and natural environment (paragraph 110).

Paragraph 118 outlines what local planning authorities should consider in terms of biodiversity when considering planning applications:

- ▶ *"significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- ▶ *proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;*
- ▶ *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- ▶ *opportunities to incorporate biodiversity in and around developments should be encouraged; planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- ▶ *the following wildlife sites should be given the same protection as European sites:*
 - ▶ *potential Special Protection Areas and possible Special Areas of Conservation;*
 - ▶ *listed or proposed Ramsar sites; and*
 - ▶ *sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."*

Sustainable Transport

NPPF Section 4 (paragraphs 29 to 41) focuses on promoting sustainable transport. Paragraph 32 states:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- ▶ *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- ▶ *safe and suitable access to the site can be achieved for all people; and*

- ▶ *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”*

Pollution Control

There are no specific sections within the NPPF relating to pollution, however it is referenced in a number of paragraphs, specifically within Section 11 (Conserving and Enhancing the Natural Environment) and paragraph 109 which states that the planning system should:

- ▶ *“prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- ▶ *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”*

Paragraph 123 states:

“To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.”

Noise

The NPPF does not specifically have a section dedicated to noise but it is mentioned within Section 11 (Conserving and Enhancing the Natural Environment) and the Technical Guidance Note provided to support the NPPF, which outlines the noise standards in relation to minerals operations.

Within the NPPF, paragraph 123 states:

“Planning policies and decisions should aim to:

- ▶ *avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;*
- ▶ *mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions;*
- ▶ *recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and*
- ▶ *identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.”*

Flood Risk

Section 10 of the NPPF refers to Flood Risk, specifically paragraphs 100 to 104. Paragraph 100 states:

“Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.”

Paragraph 103 states:

“When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where, informed by a site-

specific flood risk assessment following the Sequential Test, and if required the Exception Test, it can be demonstrated that:

- ▶ *within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and*
- ▶ *development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning; and it gives priority to the use of sustainable drainage systems.”*

Minerals

The NPPF, through Section 13 ‘Facilitating the sustainable use of minerals’, states that *“minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite resource and can only be worked where they are found, it is important to make best use of them to secure their long term conservation”* (paragraph 142).

Paragraph 143 sets out what local planning authorities should take into consideration in preparing Local Plans, including:

- ▶ *“identify and include policies for extraction of mineral resources of local and national importance in their area ...;*
- ▶ *so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously;*
- ▶ *define Minerals Safeguarding Areas and adopt appropriate policies in order that known location of specific minerals resources of local and national important are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked; and define Mineral Consultation Areas based on these Minerals Safeguarding Areas;*
- ▶ *safeguard:*
 - ▶ *existing, planned and potential rail heads, rail links to quarries, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, including recycled, secondary and marine-dredged materials; and*
 - ▶ *existing, planned and potential sites for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material.*
- ▶ *Set out policies to encourage prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;*
- ▶ *Set out environmental criteria, in line with the policies in this Framework, against which planning applications will be assessed so as to ensure that permitted operations do not have unacceptable adverse impacts on the natural and historic environment or human health ... and take into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality;*
- ▶ *When developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction; and*
- ▶ *Put in place policies to ensure worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place, including for agriculture ..., geodiversity, biodiversity, native woodland, the historic environment and recreation”.*

Paragraphs 145 and 146 state that mineral planning authorities should plan for a steady and adequate supply of minerals for aggregates and industrial minerals respectively. In planning for the future demand for and supply of aggregates, account should be taken of the published National and Sub National Guidelines

on future provision whilst making provision for the maintenance of landbanks of at least 7 years for sand and gravel and at least 10 years for crushed rock, whilst ensuring that the capacity of operations to supply a wide range of minerals is not compromised. Landbanks covering a longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites (paragraph 145).

Paragraph 146 states that minerals planning authority should plan for a steady and adequate supply of industrial minerals by a number of means including: encouraging safeguarding or stockpiling so that important minerals remain available for use; providing a stock of permitted reserves (at least 25 years brick clay) to support the level of actual and proposed investment required for new or existing plant and the maintenance and improvement of existing plant and equipment.

In terms of potential for on-shore oil and gas, coal, and/or coal bed methane, these are addressed in paragraphs 147 to 149 of the NPPF.

National Planning Practice Guidance

The National Planning Practice Guidance (NPPG), an online guidance document which accompanies the NPPF, includes specific guidance related to minerals development, entitled 'Minerals'. This guidance reiterates the importance of minerals, stating in Section 1: *“Mineral resources are defined as natural concentrations of minerals or, in the case of aggregates, bodies of rock that are, or may become, of potential economic interest due to their inherent properties. They make an essential contribution to the country’s prosperity and quality of life.”*

This section also highlights the special nature of planning for a minerals supply, which includes:

- ▶ *“minerals can only be worked (i.e. extracted) where they naturally occur, so location options for the economically viable and environmentally acceptable extraction of minerals may be limited. This means that it is necessary to consider protecting minerals from non-minerals development and has implications for the preparation of minerals plans and approving non-mineral development in defined mineral safeguarding areas;*
- ▶ *working is a temporary use of land, although it often takes place over a long period of time;*
- ▶ *working may have adverse and positive environmental effects, but some adverse effects can be effectively mitigated;*
- ▶ *since extraction of minerals is a continuous process of development, there is a requirement for routine monitoring, and if necessary, enforcement to secure compliance with conditions that are necessary to mitigate impacts of minerals working operations; and*
- ▶ *following working, land should be restored to make it suitable for beneficial after-use.”*

Given that minerals are a non-renewable resource, the guidance underlines the importance of minerals safeguarding, in that this is *“the process of ensuring that non-minerals development does not needlessly prevent the future extraction of mineral resources, of local and national importance”* (Section 2). As such, mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which:

- ▶ *“uses the best available information on the location of all mineral resources in their area;*
- ▶ *consults with the minerals industry, other local authorities, local communities and other relevant interests to define Minerals Safeguarding Areas;*
- ▶ *sets out Minerals Safeguarding Areas on the policies map that accompanies the local plan and define Mineral Consultation Areas; and*
- ▶ *adopts clear development management policies which set out how proposals for non-minerals development in MSAs will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in MSAs and to prevent the unnecessary sterilisation of minerals.”*

In addition to the safeguarding of mineral resources, (mineral) planning authorities should also safeguard existing, planned and potential storage, handling and transport sites to ensure that sites for these purposes are available should they be needed, and prevent sensitive or inappropriate development would conflict with the use of sites identified for these purposes.

In reference to planning for industrial minerals, paragraph 86 of the guidance states that “*mineral planning authorities should recognise that there are marked differences in geology, physical and chemical properties, markets and supply and demand between different industrial minerals, which can have different implications for their extraction.* These include:

- ▶ *geology influencing the size of an industrial mineral resource, how it may be extracted and the amount of mineral waste generated;*
- ▶ *the fact that markets are based on the consistent physical and/or chemical properties of each mineral. Different uses can require different specifications, and industrial minerals are often not interchangeable in use;*
- ▶ *the potential for the quality of a mineral extracted from a single site varying considerably. This may require multiple extraction faces within one quarry, or supplies of specific feedstock from several different quarries, to enable blending of lower specification material with that of higher grade. Alternatively, it may result in only a small proportion being suitable for specific industrial end-uses, with remaining minerals occasionally being used for alternative purposes such as aggregates;*
- ▶ *industrial minerals being essential raw materials for a wide range of downstream manufacturing industries. Their economic importance therefore extends well beyond the sites from which they are extracted;*
- ▶ *some industries are dependent on several industrial minerals. The loss of supply of one mineral could create difficulties for manufacturers even if the other minerals remain available.”*

The Managed Aggregate Supply System (MASS)

A major objective of minerals policy in England is to secure continuity in the supply of construction aggregates. Over the last 30 years, this has been done through a nationally managed aggregates supply system (MASS).

The National and Regional Guidelines for Aggregates Provision in England provide the starting point for this managed system. The current guidelines, published in July 2009, provide indicative estimates of the tonnages of sand and gravel and crushed rock likely to be needed in England between 2005 and 2020, and indicate how much each sub-national area is expected to contribute. The current local plans for the West Midlands Metropolitan Area, which includes Walsall, make provision for the extraction of 0.550 million tonnes of sand and gravel per annum over the guideline period and beyond. This is in accordance with the provision identified in technical evidence prepared on behalf of the West Midlands Aggregate Working Party (AWP) in 2009, based on previous 10-year average sales.

The West Midlands Metropolitan Area has no viable remaining crushed rock resources, and because of the lack of viable resources in other areas, Solihull and Walsall are the only mineral planning authorities expected to contribute towards sand and gravel supplies. Policy MIN2 of the BCCS (and its supporting text), notes however, that historically Walsall has only contributed to around 10% of the apportionment, with 90% of the West Midlands’ provision being met by Solihull. Indeed, Walsall presently contributes nothing to the sub-regional apportionment as both permitted quarries have either closed or are currently inactive.

It has recently been established that the current West Midlands Metropolitan Area requirement identified above can be fully met by Solihull, although it should be noted that a significant proportion of the permitted reserves and unpermitted resources in the ‘areas of search’ identified are at risk of being sterilised by the High Speed 2 (HS2) rail project. Specifically, the Inspector’s Report into their Local Plan (November 2014) states that the Local Plan:

“.....recognises the existence of underground coal and surface sand and gravel in the Borough, promotes the use of alternative materials and makes sufficient total requirement of 7.5mt of sand

and gravel (0.5mt/yr) over the plan period, in line with regional/sub-regional guidelines. It also identifies 3 Preferred Areas for mineral extraction and 2 Areas of Search for sand and gravel, along with MSAs for both coal and sand and gravel, based on local evidence [ENV9/SLP058] and assessments of potential mineral sites from the minerals industry [HOM14].”

In this context, there is no obligation on Walsall to make any contribution to the sub-regional apportionment in the short-term, given that the West Midlands share will be fully met by Solihull, although the position could change if it becomes apparent that over the long-term, the identified supply in Solihull is severely compromised by the development of HS2. Given the uncertainty about the timescale of the HS2 project, it is considered that to provide flexibility, the SAD should identify the ‘areas of search’ identified in the BCCS, but it is not necessary to identify additional “areas of search” for sand and gravel extraction at this stage. Going forward, it is expected that the impact of HS2 on sand and gravel supplies in the West Midlands Metropolitan Area will be explored through annual Local Aggregate Assessments (LAAs) and through future reviews of the BCCS and Solihull Local Plan.

As outlined in Section 2.3.1 above, the NPPF requires each mineral planning authority, or group of authorities acting together, to prepare annual LAAs setting out how they will be contributing to national and regional aggregate provisions (NPPF paragraphs 145, 163, and 178-181). Future aggregates provision is expected to be based on a rolling average of 10 years’ sales data and other relevant information. Recent guidance on the managed aggregate supply system was published by the CLG in October 2012 and includes advice on planning for aggregates and preparation of assessments.

It is anticipated that Walsall Council will prepare its first LAA jointly with the other West Midlands Metropolitan Authorities, later in 2015. In the absence of an LAA, the most recent information about local aggregate supplies when this report was prepared was included in the Council’s latest available Monitoring Report for Walsall and Minerals Technical Appendix (2012).

National Planning Policy for Waste

National Planning Policy (NPP) for Waste, issued in October 2014, replaces Planning Policy Statement 10 and sets out the Government’s detailed waste planning policies which should be read in conjunction with the NPPF, the Waste Management Plan for England, and National Policy Statements for Waste Water and Hazardous Waste, or any successor documents. Although the NPP for Waste is not directly relevant to minerals, the waste section of the Planning Practice Guidance sets out a general, non-exhaustive list of waste matters that may also be relevant to mineral developments, which include landfill and land raising sites (such as soils to re-profile golf courses) and recycling facilities for construction, demolition and excavation waste.

Local Policy Context

Black Country Core Strategy (February 2011)

The four Black Country local authorities of Dudley, Sandwell, Walsall and Wolverhampton have prepared a joint Core Strategy for the Black Country in partnership with the community and other key organisations. The Black Country Core Strategy (BCCS) sets out the vision, objectives and strategy for future development in the Black Country up to 2026 and beyond. Adopted on 3 February 2011, it forms part of the statutory land use development plan for Walsall; not only providing the basis for decisions on planning applications, the Core Strategy also forms the starting point for the production of the SAD and AAP.

The Core Strategy sets out ten strategic objectives. In relation to minerals, Objective 10 states that the Core Strategy will:

“Safeguard and make the most sustainable use of the Black Country’s mineral resources including primary, secondary and recycled materials, without compromising environmental quality. Potentially valuable mineral resources and mineral-related infrastructure will be safeguarded against needless sterilisation or loss. The Black Country will also minimise waste of mineral resources, maximise use of alternatives, and continued to produce a steady and adequate supply of minerals and mineral

products to support the local economy and provide the raw materials needed to support regeneration within the growth network”.

In terms of minerals, the aim of the Core Strategy policies is to encourage the prudent use of available mineral resources and to maintain an appropriate on-going supply to support regeneration in the region, whilst also seeking to conserve the area’s geological heritage. It is recognised that although the Black Country is rich in mineral resources (sand and gravel, brick clays (Etruria Marl and fireclay), coal, limestone, dolerite; and building stone), active mineral working is now confined to the fringes of the area. The only minerals currently being extracted are sands and gravels and Etruria Marl, a type of clay used for brick and tile making.

Policy MIN1 seeks to manage and safeguard the mineral resources in the Black Country which are either currently of economic importance or have the potential to become important in the future. In recognition of the extensive types of cover of minerals resources in the area, Policy MIN1 designates a Minerals Safeguarding area (MSA) to protect these resources with a view that any mineral commodity areas are further refined and developed in other Development Plan Documents, such as the Walsall SAD and AAP. The mineral commodity areas identified are:

- ▶ Sands and Gravels, Dolerite and Building Stone;
- ▶ Brick Clay (Etruria Marl) and Limestone; and
- ▶ Shallow Coal Resources.

Policy MIN1 also seeks to safeguard important mineral related infrastructure and key mineral infrastructure sites are shown on the Minerals Key Diagram and listed in Appendix 7 (Table MIN1) to the Core Strategy. Key mineral infrastructure sites identified in the Walsall area include:

- ▶ Bace Groundworks, Coppice Lane, Aldridge (Site Ref. MI1);
- ▶ Branton Hill Quarry, Branton Hill Lane, Aldridge (Site Ref. MI2); and
- ▶ Walsall Cement Bulk, Off Fairground Way, Walsall (Site Ref MI9).

The mineral specific policies are set out in Chapter 8 of the Core Strategy and outlined in Table 2.1 below.

Table 2.1 Black Country Core Strategy Mineral Policies

Policy	Summary
MIN 1: Managing and Safeguarding Mineral Resources	<p>Policy deals with four aspects of managing and safeguarding mineral resources, namely:</p> <ul style="list-style-type: none"> • A strategy for future management of mineral resources; • Minerals resources to be safeguarded; • Non-mineral development within the MSA*; and • Safeguarding of mineral related infrastructure. <p>A Strategy for Future Management of Mineral Resources Sustainable management of the Black Country’s mineral resources will be achieved through the following measures:</p> <ol style="list-style-type: none"> 1. Requiring new mineral developments to minimise waste produced through the extraction process, and encouraging the re-use, reprocessing and recycling of secondary material; 2. Encouraging the production and use of alternatives to primary land won minerals; 3. Identifying and safeguarding potentially important mineral resources and mineral related infrastructure against needless loss or sterilisation by non-mineral development; 4. Identifying locations containing viable resources where mineral extraction can take place during the plan period at levels that will support national and regional objectives, the local economy and regeneration, without compromising key environmental objectives; 5. Providing guidance on other mineral resources which may be exploited in the future to provide energy, support the local economy and enable the repair and conservation of important cultural assets; 6. Highlighting issues which should be addressed in mineral applications to maximise the benefits and minimise the potential negative effects of mineral working and related activities. <p>Mineral Resources to be Safeguarded The Black Country has the following mineral resources which are either currently of economic importance or have the potential to become important in the future:</p> <ul style="list-style-type: none"> • Aggregates (sand and gravel);

Policy	Summary
	<ul style="list-style-type: none"> • Brick clays (Etruria Marl and fireclay); • Coal; • Limestone; • Dolerite; • Building stone. <p>The resources are very extensive and cover almost the whole of the Black Country. They will be protected by being included within the Mineral Safeguarding Area (MSA) shown on the Minerals Key Diagram. Mineral commodity areas may be further refined and developed in other DPDs.</p> <p>Mon-Mineral Development within the MSA</p> <p>Proposals for non-mineral related development within the Areas of Search (see MIN2 and MIN3) will not be permitted unless it can be demonstrated that the development will not result in sterilisation of the resources within these areas. Proposals for non-mineral development close to an operational quarry should also demonstrate that the quarrying operation would not be compromised by the proposed development. The policy sets out that prior extraction of any mineral is encouraged where practicable and where this would not have unacceptable impacts on neighbouring uses. In addition, the policy sets out those types of developments within the MSA which should be accompanied by supporting information demonstrating that the mineral resources will not needlessly be sterilised and the details of what should be included in such an assessment.</p> <p>Safeguarding of Mineral Related Infrastructure</p> <p>Important mineral related infrastructure will also be safeguarded. Key mineral infrastructure sites are shown on the Minerals Key Diagram and listed in Appendix 7 (Table MIN1). These include storage, handling and processing facilities (including facilities processing waste into aggregates) and existing and potential rail heads (see also WM2 and TRAN3). Development proposals which would result in the loss of one of these sites to a non-mineral related use will be expected to demonstrate that the site has no realistic potential for the development of mineral related infrastructure or no longer meets the needs of the minerals industry.</p>
<p>MIN2: Production of Aggregate Minerals</p>	<p><i>Policy</i></p> <p>The main source of supply of aggregates in the Black Country will be from alternatives to primary aggregates such as secondary and recycled materials (see Policy WM5). However, the Black Country is committed towards making an appropriate contribution towards the West Midlands Country sand and gravel apportionment. The Black Country will continue to produce primary land-won sand and gravel, and will aim to produce a minimum of 50,000 tonnes per annum throughout the plan period.</p> <p>Suitable Locations for Sand and Gravel Working</p> <p>The full extent of sand and gravel resources in the Black Country is shown on Map MC1 in Appendix 7. However, not all of these resources are likely to be viable or suitable for use as aggregates, and some are affected by significant constraints.</p> <p>During the plan period, primary sand and gravel extraction will be concentrated within the following areas of search identified on the Minerals Key Diagram:</p> <p>MA1: Birch Lane (Walsall) MA2: Branton Hill (Walsall)</p> <p>The resources within these areas of search will enable the Black Country to maintain a minimum 7-year landbank of sand and gravel up to 2026 and beyond.</p> <p>New sand and gravel quarries outside the areas of search may also be permitted, if there is evidence that extraction proposals are unlikely to come forward in the areas of search within the plan period, or that the production targets cannot otherwise be met. All new proposals for sand and gravel extraction will be subject to the general requirements in Policy MIN5.</p> <p>Specific Requirements within the Areas of Search</p> <p>All proposals for sand and gravel extraction within the areas of search will be expected to satisfy the following requirements:</p> <ul style="list-style-type: none"> • There should be clear evidence that the restoration of the areas already worked is being progressed or will be progressed in a timely manner; • There should be no adverse impacts on water resources within the Bourne Vale and Shire Oak groundwater source protection zones; • Extension to Branton Hill Quarry will be subject to implementation of the proposed access road (approved in March 2009); • Potential adverse impacts of haulage routes on the local highway network (in particular Shire Oak junction (junction of A461 and A452)) should be minimised as far as possible. • The policy also addresses the issue of Borrow Pits, with a presumption in favour of temporary permission to provide sand, gravel and other aggregate materials required for specific construction and engineering projects.
<p>MIN3: Maintaining Supplies of Brick Clay</p>	<p><i>Policy</i></p> <p>The Minerals Sub-Key Diagram shows the location of the existing brick and tile manufacturing plants which use Etruria Marl and existing Etruria Marl quarries. The Black Country will aim to provide a supply of Etruria Marl to each operational local brick and tile works in the Black Country for as long as possible, and will aim to provide a 25-year supply to each works where feasible.</p> <p>Supply of Clays to Brickworks</p>

Policy	Summary
	<p>The extent of Etruria Marl resources in the Black Country is shown on Map MC2 in Appendix 7. Fireclay resources are also present in the Black Country, associated with surface coal deposits. However, not all of the clay resources in the Black Country are likely to be of sufficient quality for use in brick and tile making, and some are affected by significant environmental constraints.</p> <p>Suitable Locations for Working of Etruria Marl The extraction of Etruria Marl is expected to be focused in the following areas of search shown on the Minerals Key Diagram: MA3: Himley/ Oak Farm (Dudley) MA4: Ketley (Dudley) MA5: Stubbers Green (Walsall) Resources have been identified within these areas which will allow production to continue at each of the Black Country's brick / tile works until the end of the plan period. The extraction of clay will not be permitted outside the areas of search unless there is clear evidence of a deficiency in supply. All new proposals for extraction of Etruria Marl and other brick clays will be subject to the general requirements in Policy MIN5. The pooling or sharing of resources between more than one works will be supported where this will help maintain supplies for longer, provided that the haulage of material will not have unacceptable effects on the local highway network or on other uses along the route. Proposals for the extraction of Etruria Marl within the areas of search should satisfy the following requirements:</p> <ul style="list-style-type: none"> • They should form part of a phased programme which secures restoration of existing workings by the earliest possible date; • Proposals within the Flood Zone 3a along the Holbeache Brook in Dudley and to the south of Stubbers Green Road in Walsall should assess the risk of flooding and include details of how this will be addressed in line with ENV4; • Harmful impacts on designated biodiversity / geodiversity sites should be assessed and full details of proposed mitigation / compensation for potential losses should be provided in line with ENV1; • Haulage routes passing through the Stubbers Green area of Walsall should avoid the Shelfield junction (junction of A461, Spring Road and Mill Road). <p>Working of Fireclay Fireclays are known to occur within the area west of Brownhills in Walsall in association with surface coal resources. They are not currently being extracted but are worked from long-term stockpiles for use in brick, pottery and other ceramic manufacture. Local demand for fireclay for brick manufacture is currently being met mainly from imports. Opportunities to produce fireclay through surface coal working should be exploited where feasible (see Policy MIN4) and environmentally acceptable. The extraction of fireclay is expected to be focused in the following area of search shown on the Minerals Key Diagram: MA6: Yorks Bridge (Walsall).</p> <p>Stockpiling of Clays There is an existing stockpile of fireclay at Birch Coppice to the west of Brownhills in Walsall, which is shown on the Minerals Key Diagram. Further stockpiling of fireclay and other clays used for brick, pottery and other ceramic manufacture will be permitted within the curtilage of existing works where they comply with the requirements of MIN5. Proposals for "strategic" stockpiles of fireclay (to be used by more than one manufacturer or supplier) should satisfy the following criteria:</p> <ul style="list-style-type: none"> • They should be supported by evidence demonstrating a need for fireclay, and that stockpiling is the most appropriate method of securing long-term supplies; • They should be located as close as possible to the source of the material and to the proposed end-users; • There should be good accessibility by road and / or rail between the site, the source of the material and the proposed end-users; • In the interests of minimising visual impacts, the height of the stockpile should be kept to a minimum, its design and form should reflect the surrounding landscape, and appropriate screening/ landscaping should be included (see ENV2). <p>Importation of Clays Importation of material may be permitted in the case of clays that do not occur locally, and/ or where this will allow supplies of Etruria Marl or fireclay to be maintained for longer than would otherwise be the case, provided that this will not result in unacceptable impacts on the local highway network or on local communities. Applications to allow or increase importation of clay will be expected to be supported by evidence to this effect. Where an agreement is in place to pool or share the resources, the movement of clay from the Stubbers Green area of search to any of the three brickworks in Walsall will not be regarded as "importation."</p>
MIN4: Exploitation of Other Minerals	<p><i>Policy</i> Apart from aggregates and brick clay, there are other mineral resources present within the Black Country which may become of economic value in the future. They are included in the Mineral Safeguarding Area identified in MIN1 and on the Minerals Key Diagram. The main resources present which could be exploited some time within the plan period are coal and</p>

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associated fireclay, and natural building stone. The following policy will apply to new proposals for the working of these minerals, other than as part of a “prior extraction” scheme (see MIN1). All proposals will also be subject to the general requirements in Policy MIN5.

Coal and Fireclay Working

Surface coal resources occur across much of the Black Country, and their location is shown on Map MC3 in Appendix 7. Fireclay, which is of importance for brick making and pottery making, may also occur in association with these deposits.

There is a general presumption against deep mining of coal, surface coal working and colliery spoil disposal in the Black Country, unless the proposal would meet the tests of environmental acceptability set out in national policy guidance. Any such proposals will be expected to be fully justified in terms of the economic and energy benefits they will generate. Proposals for the working of coal will also be expected to extract maximum value from other mineral resources associated with coal deposits.

Where surface working is proposed, brick manufacturers and other potential end-users should be involved at the earliest possible stage, to determine whether there is fireclay or other clay present, and whether it is of sufficient quality to be used for brick manufacture or for other beneficial uses. Where suitable quality fireclay is present and extraction is feasible, the working plan and restoration programme should enable this to be extracted and stockpiled in a usable and accessible way (see MIN3).

The location of a “dormant” permission for the winning and working of clay and coal by underground and surface mining is shown on the Minerals Key Diagram. The permitted site is within Brownhills Common and the Slough SINC. Working can only commence when a modern scheme of conditions has been submitted to and approved by the mineral planning authority (Walsall Council). Such conditions must minimise harm to the SINC and maximise the benefits and quality of final restoration. Restoration should be to the highest possible standard to ensure that no future legacy problems are created and that the restored site is at least equivalent to its current quality and value for nature conservation and recreation. Any approval of coal and fireclay working in the Brownhills Common area will be subject to conditions requiring restoration to an appropriate nature conservation/ recreational after-use, which will make a contribution towards the implementation of the proposed Local Nature Reserve.

Coal Bed Methane

The potential for exploitation of Coal Bed Methane (CBM) will be considered if a Petroleum Exploration Development Licence (PEDL) is issued in the Black Country, and at that stage appropriate guidance will be incorporated into LDFs either through a review of this plan or through another DPD. Proposals coming forward in advance of this will be assessed against the guidance in Policy MIN5 and the following conditions will apply.

Any permission granted for the extraction of CBM will be temporary, and subject to conditions limiting the duration of the operation. Proposals should include details of the area covered by the PEDL, the scale and type of operation, the drilling apparatus to be used (including the height of the rig or wellhead), and the site where the wellhead will be stationed. A separate application may be required to relocate a wellhead. Drilling apparatus should be appropriately screened and sited to minimise noise and potentially harmful visual impacts (see ENV2 and MIN5).

Working of Natural Building Stone

The location of natural building stone resources is shown on Maps MC1 and MC2 in Appendix 7. Proposals for the working of natural building stone on a small scale, and on a time-limited basis, may be supported where this would assist the conservation and repair of historic buildings or structures built of the same or similar materials. Proposals should be supported by evidence that the stone to be worked will be used in a specific conservation project, that this material makes a significant positive contribution to the character of the building, structure or area, and that the working process would not have unacceptable impacts on neighbouring uses.

MIN5: New Proposals for Mineral Development*Policy***General Requirements for Mineral Developments**

All new development proposals involving mineral working or mineral related developments should demonstrate how they will contribute towards Spatial Objective 10 and the strategic objectives of Policy MIN1, such as the contribution they will make towards the long-term conservation and safeguarding of mineral resources. The benefits of the proposal should clearly outweigh any potential detrimental impacts. Conditions attached to new mineral permissions will reflect the latest standards of good practice in the control of such operations.

Proposals should minimise waste as far as possible and where feasible, provision should be made for the extraction, re-use or recycling of potentially useable materials produced as a by-product of the operation. All proposals should set out the contribution they will make towards the mineral production and supply targets in Policies MIN2 and MIN3 (such as the extent of reserves and anticipated annual production rates), and the contribution that final restoration will make towards waste disposal requirements (see WM1 and WM3). Working plans and restoration proposals should include measures to maintain the stability of the working face, the site and surrounding area prior to and during restoration. When working ceases, all plant and equipment should be removed and sites should be restored to a stable condition and to a standard fit for the agreed after-use within a short a timescale as possible.

Environmental and Amenity Issues

The working or processing of minerals or extraction of coal bed methane will not be permitted in residential areas unless it can be demonstrated that the operations will not cause unacceptable harm to the amenity of

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local communities. Proposals in or near to the Growth Network and Free-Standing Sites should be compatible with the existing/ proposed uses. Locations within or near to sites of importance for biodiversity, geodiversity or cultural heritage, should be avoided unless there are no viable alternatives (see ENV1). A hydrological report should be provided with proposals in areas at risk of flooding and proposals in or near to aquifers, demonstrating that any potential impacts have been addressed (see ENV5).

To minimise potential impacts from dust and noise, where feasible, mineral processing operations should be enclosed and screened by well-designed boundary treatments (such as fencing, bunds, hedges, tree planting and landscaping). In areas already affected by mineral working or related activities, the cumulative impact of the proposal on the environment, transport network, and neighbouring uses will be considered, as will the timescale and duration of the operations. Over-intensification of mineral working activity in any one area should be avoided where this would have adverse impacts on neighbouring uses.

New buildings, structures, plant and equipment, boundaries, noise bunds and landscaping should be designed and sited to minimise visual impacts (see ENV3). Restoration programmes and after-uses for former mineral workings should address the environmental quality objective of the Spatial Strategy and reflect local character and should include provision for after care. Where appropriate, they should make a positive contribution towards the Black Country's environmental infrastructure (policy CSP3). Suitable after-uses for sites in the Green Belt will could include agriculture, forestry, nature conservation, flood alleviation and outdoor sports or recreational uses.

Transport Issues

Minerals should be worked or processed as close as possible to the development or communities that will use them. Proposals should address the impact of transporting minerals and mineral products on the highway network and if they generate a significant number of additional heavy goods vehicle movements they should be accompanied by a Transport Assessment (see TRAN2). Where there is no realistic alternative to the bulk transport of minerals and mineral products by road, impacts will be minimised by identifying agreed haulage routes from the production site to the Principal Road Network and Primary route Network. Where feasible, the potential for transporting material by rail or inland waterways should be explored, particularly in locations identified as having potential for rail freight transport (see TRAN3). Long-distance transport or haulage of material should be avoided wherever possible. Where a proposal involves cross-boundary movements of minerals or mineral products and/ or is part of a wider network or "hub" of facilities or workings, the views of the relevant highway and mineral planning authorities will be taken into account.

Assessment Criteria for Mineral Development Proposals

Proposals for mineral working or mineral-related infrastructure will be assessed against the following criteria:

- Whether the proposal supports national and local strategies and objectives for minerals (for example, Spatial Objective 10);
- Whether the proposal supports the local economy and regeneration objectives for the Black Country (for example, would it create or retain local jobs, provide raw material and mineral products for local businesses, or help to supply construction projects within the Growth Network?);
- Whether the proposal contributes towards the positive environmental transformation of the Black Country (for example, is it designed to complement/ contribute towards environmental infrastructure, does it identify and adequately address potential harmful effects on the environment, and is it capable of being implemented without creating or exacerbating geotechnical or environmental problems?);
- Whether the proposal would provide opportunities for co-location of related uses and/ or generate other benefits (for example, would it produce aggregates as secondary materials, involve re-use, recovery and recycling of aggregates from waste, or recovery of landfill gas for energy?);
- Whether the proposal is compatible with neighbouring uses (taking into account the nature of the operations, the hours of working, the timing and duration of the operations and cumulative effects), and if so, whether it identifies and adequately addresses potential harmful effects on amenity;
- Whether the proposal would address impacts on the highway/ transport network (for example, for example, has the potential to move minerals and mineral products by rail or inland waterway been fully considered, and does it identify and adequately address impacts on the local/ strategic highway and drainage network?).

The same criteria will be used to identify and select sites for inclusion in other DPDs (where appropriate), as well as for assessing planning applications.

Walsall Unitary Development Plan (2005)

Extant local planning policy is set out in the Walsall Unitary Development Plan (UDP), adopted in 2005 and set to cover the period up to 2011. Although some policies have been replaced by the BCCS policy, many policies as well as the UDP Proposals Map and Town and District Centre Inset Maps have however been 'saved' and will eventually be replaced by new Local Plans, including the SAD and AAP as appropriate.

The majority of the UDP minerals related policies have been superseded by those relevant policies in the BCCS, as outlined in the section above, with the exception of two policies which are set out in Table 2.2.

Policy M7, in particular remains relevant in that the restoration of the former Birch Coppice site has not yet been completed.

Table 2.2 Relevant Walsall UDP 'Saved' Policies

Policy	Summary
Policy GP2: Environmental Protection	The policy sets out the expectation that all developments will make a positive contribution to the quality of the environment and the principles of sustainable development, and will not permit development which would have an adverse impact on the environment. The various considerations to be taken into account are set out in the policy.
Policy M7: Birch Coppice	Policy seeks to ensure the restoration of this area to land uses that maintain its openness as soon as is reasonable practicable, and states the Council will be unlikely to support any proposal which unreasonably extends the timescale for final restoration.

Emerging Walsall Local Plan

Walsall Council has commenced preparing the documents that will form part of the Local Plan for Walsall, which when adopted will replace the 2005 UDP in stages. The SAD and AAP are two key Local Plan documents and will sit alongside the adopted BCCS.

Site Allocation Document (SAD)

As outlined elsewhere in this report, the SAD will identify specific sites for particular uses, to show how the targets in the BCCS will be met. It will cover the whole of the borough, excluding Walsall Town Centre (see below). The SAD will replace many of the (saved) policies in the adopted UDP, in particular the Proposals Map which shows the land uses that are currently allocated for individual sites. Minerals will be one of the land uses to be addressed through the SAD.

Consultation on the first stage of the SAD preparation, the 'Issues and Options', took place between April and June 2013. Consultation on the second stage, the 'Preferred Options', is expected to take place in August / September 2015, with a Draft SAD published for consultation in February 2016. The SAD would then need to be subject to an Examination by an independent Inspector, expected to take place in Autumn 2016, before it can be formally adopted by the Council in late 2016.

Minerals are addressed in Chapter 9 of the SAD Issues and Options document. Four main issues have been identified that the SAD needs to address in relation to minerals. These are:

- ▶ Minerals Safeguarding Area (MSA) – a MSA needs to be defined covering all minerals of local and national importance on the Policies Map and a decision needs to be made how the different types of minerals within it should be shown to ensure clarity;
- ▶ Safeguarding Walsall's Mineral Infrastructure – the boundaries of existing, planned and potential mineral infrastructure sites to be safeguarded, such as sites for production of aggregates from alternative, secondary and recycled sources, sites for producing coated materials, concrete and cements, and sites for bulk transport of minerals, need to be identified on the Policies Map;
- ▶ Meeting Mineral Supply Requirements – to meet the current and anticipated future demand for sand and gravel and brick clay over the plan period and beyond, the boundaries of areas where mineral working should take place need to be defined on the Policies Maps. In addition, consideration needs to be given to whether there are any sites suitable for 'borrow pits' or stockpiling of fireclay; and
- ▶ Managing the Impacts of Mineral Development – to consider what impacts the sites being considered for new mineral infrastructure, stocking or extraction are likely to have on the environment, local communities and local businesses, how best to mitigate and management harmful effects and maximise potential benefits, and how sites proposed as quarries should be restored and used once mineral extraction has ceased.

Town Centre Area Action Plan (AAP)

An AAP is a comprehensive long-term plan which will allocate sites for development within the town centre of Walsall for new shops, leisure facilities, and offices, as well as setting out strategies for other aspects including transport and the environment. The AAP will set the planning framework for the Town Centre, and when adopted will be the basis on which planning decisions are made within the area.

The AAP is being progressed in parallel with the SAD. As with the SAD, consultation on the first stage of the AAP preparation, the 'Issues and Options', took place between April and June 2013. Consultation on the second stage, the 'Preferred Options', is expected to take place in August / September 2015, with a Draft AAP published for consultation in February 2016. The SAD would then need to be subject to an Examination by an independent Inspector, expected to take place in Autumn 2016, before it can be formally adopted by the Council in late 2016.

The AAP recognises that significant areas of land within the Borough have been developed and redeveloped over time with consequential impact upon the underlying ground conditions including as a result of the working of the varied mineral resources in the area, in particular, limestone and coal. Historic limestone working mainly affects the Gigaport and Waterfront areas. Although the known voids in the Town Centre have been treated, their existence still limits the load-bearing capacity of the sites affected.

The western fringe of the Town Centre is also within the Coal Mining Development High Risk area, and information published by the Coal Authority suggests that some areas have been affected by historic coal mining. The presence of potentially difficult underlying ground conditions in parts of the Town Centre may not necessarily prevent development but may instead require the submission of an appropriate risk assessment to assess development viability. Due consideration will also need to be given to the fact that part of the MSA covers some of the Town Centre area.

2.5 Conclusions

This section has set out the range of national, regional and local policies and strategies which influence the extraction of mineral resources in Walsall and planning for their future extraction to ensure a steady and adequate supply. In particular, the spatial requirements set out will need to be taken into consideration in formulating appropriate policy, the safeguarding of mineral resources of potential local and national importance, and the identification of areas likely to be suitable for future mineral extraction to meet the requirements identified in current policy.

3 Soundness – Council’s Approach towards Minerals Development Options

3.1 Introduction

This section seeks to review the Council’s approach to identifying minerals development options with a view to identifying any critical gaps likely to impact on the soundness of the SAD and AAP.

3.2 Methodology and Approach

Amec Foster Wheeler has sought to undertake a critical review of the Council’s approach towards the identification, evaluation and appraisal of mineral development options with a view to identifying any significant deficiencies and/or omissions in the processes used to identify potential options and the evaluation framework used to refine the Preferred Options for the SAD and AAP. In undertaking this review, due consideration has been given to a number of key factors, not least the complexity of the Black Country’s geology, as well as the wider planning policy context at the national, regional and local levels, in particular the BCCS.

Furthermore, it has been assumed that extant requirements for mineral development will be met as set out in the Council’s existing development plan documents and supplementary planning documents as well as national legislation and guidance, i.e. Section 13 of the NPPF and national planning practice guidance (NPPG) on minerals. Where appropriate, British Geological Survey (BGS) mineral resource mapping information has been reviewed to ascertain whether any further refinement of the BGS minerals resource areas can be made, in particular for sand and gravel, brick clay, and fireclay, not least to ensure consistency of approach with adjoining authorities in particular where mineral resources straddle administrative boundaries such as with neighbouring Staffordshire County Council.

The Council’s emerging preferred option is to show a single Mineral Safeguarding Area (MSA) on the SAD Policies Map and AAP Inset Map, with separate map(s) appending each document showing the extent of different mineral commodity areas. Furthermore, due consideration has been given to the following key issues:

- ▶ Feasibility of prior extraction of minerals in advance of non-mineral development in urban areas such as Walsall;
- ▶ Viability of sites for potential aggregate recycling, both existing and new sites; and
- ▶ Safeguarding potential fireclay, brick clay and coal bed methane and/or shale gas resources.

The outcome of the review of each of the above key issues are addressed in turn in the subsequent sections of this report and supported, as appropriate, by the appended assessment proformas.

3.3 Background / Context

As part of the Black Country, the Walsall area is rich in mineral resources given its complex underlying geology. The western parts of the Borough lie within the South Staffordshire Coalfield, consisting of Coal Measures, which are in part overlain with limestones and shales (including brick clays), whereas the eastern third of the Borough has extensive sand and gravel resources overlying the Coal Measures (see **Figure 3.1**). These resources are described further in Sections 6 to 10 below.

The minerals industry in Walsall only makes a relatively small contribution to the local economy, but nevertheless provides employment as well as building materials (e.g. construction aggregates, bricks, etc.) that are essential to the delivery of new development and engineering projects. Extraction is now confined to the fringes of the Borough. Brick clay is being extracted at two sites in Stubbers Green (Atlas Quarry and Sandown Quarry) to supply the adjacent Atlas and Sandown brickworks. Until recently, brick clay was also

being extracted at Highfields South Quarry in Walsall Wood, supplying two brickworks in Walsall, but this ceased in 2013 and the site is now an operational non-hazardous landfill site only. Until recently, sand was also being quarried at Branton Hill Quarry in Aldridge, but this also ceased in 2013 and the site is now inactive although there are believed to be some reserves remaining. There are also two 'dormant' sites covered by old mineral permissions dating back to the 1950s which have not been implemented: one for working brick clay at Highfields North, to the north of the A461 Pelsall Road, and the other for working fireclay and coal on part of Brownhills Common.

In addition to these sites, there are a number of other sites in the Borough involved in mineral processing, storage and distribution. These include: facilities producing aggregates from recycled construction and demolition waste in Aldridge and at Bescot; a rail-linked bulk cement distribution facility south of the Town Centre; a concrete batching plant in Leamore (off the A34 Green Lane); and a coating plant at Willenhall.

Table 3.1 sets out a list of permitted mineral extraction sites in Walsall, whilst Table 3.2 sets out a list of permitted mineral processing, storage and distribution sites and Table 3.3 lists brickworks and ceramics industry sites. The distribution of all these sites is illustrated in **Figure 3.2**.

Table 3.1 Permitted Mineral Extraction Sites in Walsall (as at December 2014)

Site	Mineral	Use	Operational Status	Site Reference
Aldridge (Birch Lane) Quarry	Sand & Gravel	Aggregate / building sand	Inactive – working ceased in 2008, restoration not yet commenced	MP1
Branton Hill Quarry	Sand	Building sand	Inactive – working ceased in May 2013, restoration of worked phases incomplete	MP4
Atlas Quarry	Brick Clay	Manufacture of bricks and blocks	Active	MP2
Former Highfields South Quarry	Brick Clay	Manufacture of bricks and blocks	Inactive – working ceased in 2013, restoration underway (non-hazardous landfill site)	MP6
Sandown Quarry	Brick Clay	Manufacture of bricks and blocks	Active	MP7
Former Vigo Utopia Quarry	Brick Clay	Manufacture of bricks and blocks	Closed – restoration completed, final landscaping underway	MP8
Highfields North	Brick Clay	Manufacture of bricks and blocks; some sand and gravel	Dormant permission	MP9
Birch Coppice	Coal and Fireclay	Fireclay (used in manufacture of pot clay blends)	Inactive – working ceased in 1950s or 1960s, clay still being stocked on part of site	MP3
Brownhills Common	Coal and Fireclay	Fireclay (used in manufacture of pot clay blends)	Dormant permission	MP5

Source: SAD Issues and Options (2013); Mineral Site Profiles provided by Walsall Council (2014)

Table 3.2 Permitted Mineral Processing, Storage and Distribution Sites in Walsall (as at December 2014)

Site	Use	Operational Status	Site Reference
Former Bace Groundworks Coppice Lane, Aldridge	Aggregates recycling	Vacant	MI1
Branton Hill CLEUD Site Branton Hill Lane, Aldridge	Aggregates recycling	Vacant	MI2
Branton Hill CLEUD Relocation Site Branton Hill Quarry, Chester Road, Aldridge	Aggregates recycling	Vacant	MIP2 ²
Hope Construction Depot, Midland Yard, Off Fairground Way, Walsall	Rail-linked cement distribution depot and Ready Mix (RMX) plant	Cement Distribution Depot – Operational RMX Plant – Under construction	MI3
Bescot Triangle South Off Bescot Road, Bescot	Aggregates recycling	Operational	MI4
Express Asphalt Darlaston Downs Road, Willenhall	Coating plant	Operational	MI5
G & B G Morris, Willenhall Industrial Estate, off Eastacre, Willenhall	Secondary aggregates processing	Operational	MI6
Interserve Material Recycling Facility, Brickyard Road, Aldridge	Materials recycling facility (MRF) processing mainly CD&EW	Operational	MI7
Lafarge Readymix Birmingham Off Fenchurch Close, Walsall	RMX plant	Operational	MI8

Source: SAD Issues and Options (2013); Mineral Site Profiles provided by Walsall Council (2014)

Table 3.3 Brickworks and Ceramic Industry Sites in Walsall (as at December 2014)

Site	Use	Operational Status	Site Reference
Aldridge Brickworks (Ibstock), Brickyard Road, Aldridge	Brickworks	Operational	MB1
Atlas Brickworks (Ibstock), Stubbers Green Road, Aldridge	Brickworks	Operational	MB2
Sandown Brickworks (Wienerberger), Stubbers Green Road, Aldridge	Brickworks	Operational	MB3
Swan Works (Potters Clay & Coal Company), Pelsall Road, Brownhills	Manufacture and Supply of Pot Clay Blends	Operational	MC1

Source: SAD Issues and Options (2013); Brick Clay Information provided by Walsall Council (2014)

² The proposed Branton Hill CLEUD Relocation Site (MIP2) is understood to be the Council's emerging Preferred Option for the location of the aggregate recycling operations at Branton Hill Quarry, in preference to the existing CLEUD Site (MI2) which covers the whole of the permitted quarry area.

3.4 Review Findings

Amec Foster Wheeler has undertaken a thorough review of the Minerals section of the SAD Issues and Options Report against the national and regional minerals planning context which has been set out in Section 2 of this report. In particular, a critical appraisal of the options identified has been carried out to determine their relevance and validity; whether any options have been overlooked; and how policy and other developments since the options were developed may have affected the basic premise of the options discussions.

Taking each option topic in turn, broad conclusions are:

Minerals Option 1: Mineral Safeguarding Areas

Policy MIN1 of the BCCS identifies a Mineral Safeguarding Area (MSA), which is defined on the Proposals Map for each authority, which seeks to protect those minerals resources within the MSA from other non-mineral development, i.e. to prevent their sterilisation³. Separate maps showing the extent of the mineral commodity are also provided and the policy expectation is that these mineral commodity areas may be further refined and developed in other development plan documents, such as the Walsall SAD and AAP.

In the SAD and AAP, the Council are also proposing to identify an MSA covering all minerals of local and national importance and for this area to be shown on the Policies Map and Inset Map (**Option 1a**), rather than separate MSAs for each mineral type (**Option 1b**), which is considered to be potentially difficult to interpret, given that the SAD Policies Map and AAP Inset Map will have to show many other designations.

Depending on the extent of that MSA, there could potentially be an issue of consistency with the Core Strategy, particularly if the MSA in the SAD was to be smaller than that identified in the BCCS. If that were the case, which document would take precedence in policy terms where development in a MSA, as identified in the Core Strategy but not in the SAD, comes forward? As such, one of the options not apparently considered in the SAD Issues and Options Report is whether to simply replicate the Core Strategy MSA, whilst seeking to identify more refined Areas of Search for each mineral commodity where it is considered more likely for mineral development proposals to come forward. Indeed the provision to do just that is set out in Policy MIN1 of the Core Strategy.

It is understood that this issue was considered by the Council when the Core Strategy was submitted for examination. The Council considered it preferable to define detailed boundaries for both the MSA and the mineral commodity areas in parallel, through the SAD. Hence, Tasks 1a and 1b of this study have included a review of the mineral resource mapping and available evidence on mineral resources, to establish whether there is scope for further refinement of these areas in Walsall. In reviewing this evidence the following factors have been taken into account:

- ▶ The latest version of the NPPG on Minerals (March 2015) advises that when defining MSAs, minerals planning authorities should use the “*best available information*” on the location of mineral resources in their area, and should consult with the minerals industry (ID 27-003-2015-0306⁴);
- ▶ The NPPG signposts to current best practice guidance by BGS (2011), which advises that the BGS and Coal Authority digital mineral resource mapping is ‘adequate’ “*if no other information is available*”. However, the guidance also cautions that some of the information on which the maps were based may have changed, and that other data should be incorporated where available (Mineral Safeguarding in England: Good Practice Advice (2011), Section 4.1);
- ▶ During consultation on the BCCS in 2007, mineral industry representatives expressed the view that there should be separate areas defined for each mineral commodity and that these should be refined in consultation with them (BCCS Minerals Background Paper 2 (2010), Black Country Authorities, Section 2.1);

³ Mineral Safeguarding Areas are identified rather than Mineral Consultation Areas as the authorities within the Black Country area are all single tier authorities and so determine all minerals applications as well as other applications for development.

⁴ NPPG online <http://planningguidance.planningportal.gov.uk/blog/guidance/minerals/minerals-safeguarding/>

- ▶ Information provided by the Council indicates that during these discussions, one operator commented that the mineral commodity maps should show where areas of brick clay 'down dip' beneath areas of overburden, for consistency with the approach in other areas with brick clay resources – examples of this in Staffordshire and Warwickshire are given in the BGS good practice guidance (Case Study 1);
- ▶ The MSA and mineral commodity areas in Walsall need to be consistent with those defined in adjoining areas of Staffordshire, particularly areas of fireclay within the South Staffordshire Coalfield (see Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council (BGS, 2006), and Staffordshire and Stoke-on-Trent Minerals Local Plan consultation document (April 2014)); and
- ▶ One mineral operator (Lafarge Tarmac) has recently questioned the robustness of the superficial sand and gravel areas defined by BGS elsewhere in the West Midlands, on the grounds that the BGS mineral resource mapping (dated 1992) was based on observations of surface features only and did not take into account below ground investigations (see Birmingham Development Plan Examination, Matter C Hearing Statement - Mr Paul Gilmour (September 2014)).

The review of BGS mineral resource mapping and available evidence on mineral resources has established that due to the limitations of the evidence base and lack of more detailed resource information such as readily available borehole logs, it has not been possible to further refine the BGS mineral resources areas. Nevertheless, **Figures 3.3 to 3.5** illustrate how the mineral resource areas relate to permitted mineral sites (as identified in Tables 3.1 to 3.3 above) for sand and gravel, brick clay, fireclay, and unconventional hydrocarbons such as coal bed methane and shale gas respectively. An overview of the geological and mineral resource information is provided for each of the key minerals in Walsall, as set out in Sections 6.3 (sand and gravel), 7.3 (Brick clay), 8.3 (fireclay) and 9.3 (unconventional hydrocarbons) of this report.

As shown in Figure 3.4 and set out in further detail in Section 7.3 of this report, Walsall's main brick clay resource is Etruria Marl, which outcrops at or near to the ground surface in the Stubbers Green and Sheffield areas to the south of the A461 (Walsall Road). This is currently the main focus for brick clay extraction and manufacture in Walsall. BGS geological mapping indicates that the outcrop of Etruria Formation is largely bounded to the west by the Clayhanger Fault, and to the east by the Vigo Fault. The Clayhanger Fault downthrows to the east, such that the younger Etruria Formation outcrops adjacent to the older Lower Coal Measures Formation and Silurian strata to the west and south of the fault. The Vigo fault also downthrows to the east and younger Alveley Member (formerly Keele Formation) outcrops at the surface, east of the fault. There is an area within the fault block where Etruria Formation is overlain by the Alveley Member (formerly Keele Group). Figure 3.4 indicates the extent of Etruria brick clay resources including the minor area where the Alveley Member outcrops over the Etruria Formation; it is likely that the Alveley member is of limited thickness at this location, and the Etruria Formation is therefore located at shallow depth and is a viable resource. Given the presence of geological faulting around the main Etruria Formation outcrop, there is limited potential for additional areas of Etruria Formation brick clay dipping down below younger shallow strata beyond the faults bounding the main Etruria outcrop.

Minerals Option 2: Meeting Mineral Supply Requirements (General)

It is agreed that not to define any Areas of Search or specific sites where mineral extraction could take place during the plan period would fail to comply with prevailing national and regional planning policy as set out in Section 2 of this report and should therefore be discounted as not being a 'reasonable' option for the SAD. The scope for refinement of options for supply of minerals other than brick clay and fireclay (Options 3 and 4) is considered in Sections 5, 6, 8, 9, and 10 of this report.

Minerals Option 3: Meeting Mineral Supply Requirements (Brick Clay)

It is agreed that the options presented in relation to brick clay (Etruria Marl) are robust but could be further refined; see Section 7 of this report for a further assessment of the options considered. However, due consideration needs to be given as to whether some of the locational options put forward really constitute Areas of Search or whether they are more tightly defined site allocations. If the latter, it could be confusing

to refer to Areas of Search and as such careful consideration should be given to the terminology used in the SAD.

Minerals Option 4: Meeting Mineral Supply Requirements (Fireclay)

It is agreed that the options presented in relation to fireclay are robust; see Section 8 of this report for a further assessment of the options considered. However, notwithstanding the identification of an Area of Search in the Yorks Bridge area in the Core Strategy, we recommend that further consideration needs to be given as to whether there is sufficient justification for identifying an Area of Search for fireclay in the SAD, given the constraints to working in this area.

Minerals Option 5: Meeting Minerals Supply Requirements (Site Allocations)

It is agreed that the option to present site allocations is robust and in accordance with prevailing national and regional planning policy, particularly in the case of brick clay, coal and fireclay. Nevertheless, in light of the recent developments on the Solihull Local Plan, it is questioned whether the option to allocate sites for aggregates (i.e. sand and gravel) is necessary or indeed relevant. The SAD Issues and Options report identifies two potential site allocations for sand and gravel – MXP1 Land near Aldridge Quarry and MXP2 Branton Hill Quarry Extension. Both these sites are further assessed in Section 6 of this report.

As previously outlined in Section 2, the West Midlands Metropolitan Area, which includes Walsall, is currently expected to produce around 0.55 million tonnes per annum of sand and gravel to meet forecasted demand for aggregates over the current guideline period (2005 – 2020) and beyond. The only authorities currently contributing to this indicative requirement are Solihull and Walsall in that they are the only authorities with viable sand and gravel resources. Until recently, quarries in Solihull were meeting more than 90% of the requirement with the remainder being met by Walsall, and since Walsall's sole remaining sand and gravel quarry (Branton Hill) closed in 2013 Solihull has been meeting 100% of the requirement. Policy MIN2 of the Core Strategy includes an indicative annual production target for Walsall of around 50,000 tonnes per annum, reflecting the likely production rate if a new extraction site came forward.

Since the publication of the SAD Issues and Options Report, it has become apparent that Walsall does not need to make any contribution to meeting the West Midlands Metropolitan Area's sand and gravel supply requirements in the short-term, given that these requirements will be fully met by Solihull. The Inspector's Report into the Solihull Local Plan (November 2014) states that the Local Plan:

“.....recognises the existence of underground coal and surface sand and gravel in the Borough, promotes the use of alternative materials and makes sufficient total requirement of 7.5mt of sand and gravel (0.5mt/yr) over the plan period, in line with regional/sub-regional guidelines. It also identifies 3 Preferred Areas for mineral extraction and 2 Areas of Search for sand and gravel, along with MSAs for both coal and sand and gravel, based on local evidence [ENV9/SLP058] and assessments of potential mineral sites from the minerals industry [HOM14].”

However, we have noted above (see Section 2.4 Planning Policy Context: Managed Aggregate Supply System (MASS)) that a significant proportion of the permitted reserves and unpermitted resources in the 'areas of search' identified in the Solihull Local Plan are at risk of being sterilised by the High Speed 2 (HS2) rail project. In the light of this situation, it is not considered a 'reasonable' option for the SAD to exclude the two Areas of Search for sand and gravel extraction identified in the Core Strategy, although our analysis of the site specific options (see Section 6 of this report) indicates that there is insufficient certainty about viability and deliverability to justify site allocations.

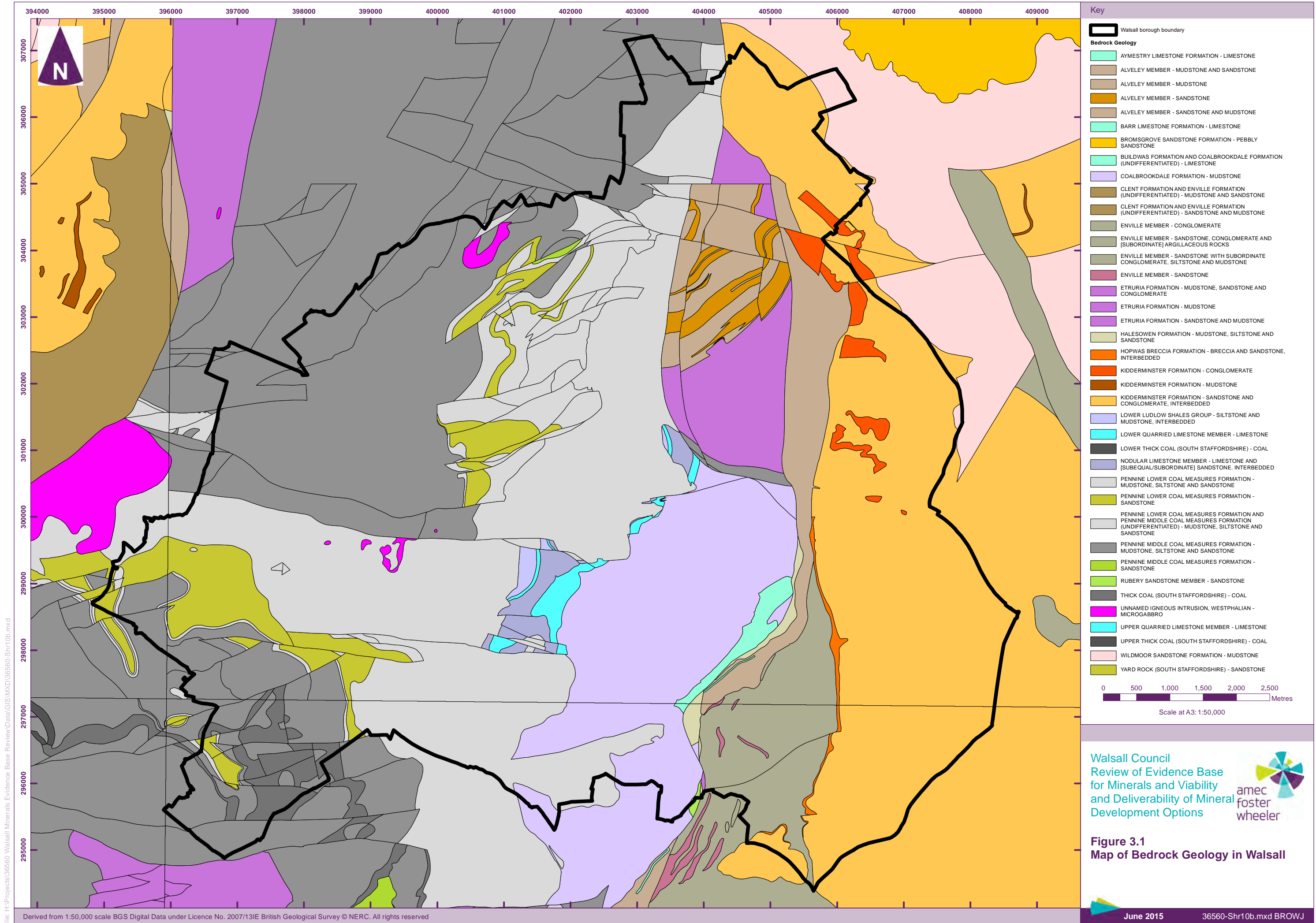
Minerals Option 6: Limiting the Impacts of Mineral Extraction

It is agreed that the options presented in terms of limiting the impacts of mineral extraction are robust.

3.5 Conclusions

The review of the Council's approach for minerals development options and in particular of those options identified in the SAD Issues and Options Report has determined that the Council's approach is generally considered to be sound. The review findings are summarised below:

- ▶ In terms of minerals safeguarding, one option not apparently considered as part of the SAD Issues and Options, is whether to simply replicate the BCCS MSA, whilst seeking to identify more refined Areas of Search for each mineral commodity where it is considered more likely for mineral development proposals to come forward; indeed the provision to do just that is set out in Policy MIN1 of the Core Strategy; and
- ▶ Whether in light of the Inspector's Report on the Solihull Local Plan, the option to allocate sites for aggregates (i.e. sand and gravel) is necessary or indeed relevant, even if any of the sites identified were considered viable or deliverable, in that it has become apparent that Walsall does not need to make any contribution to meeting the West Midlands Metropolitan Area's sand and gravel supply requirements in the short-term, given that these requirements will be fully met by Solihull.

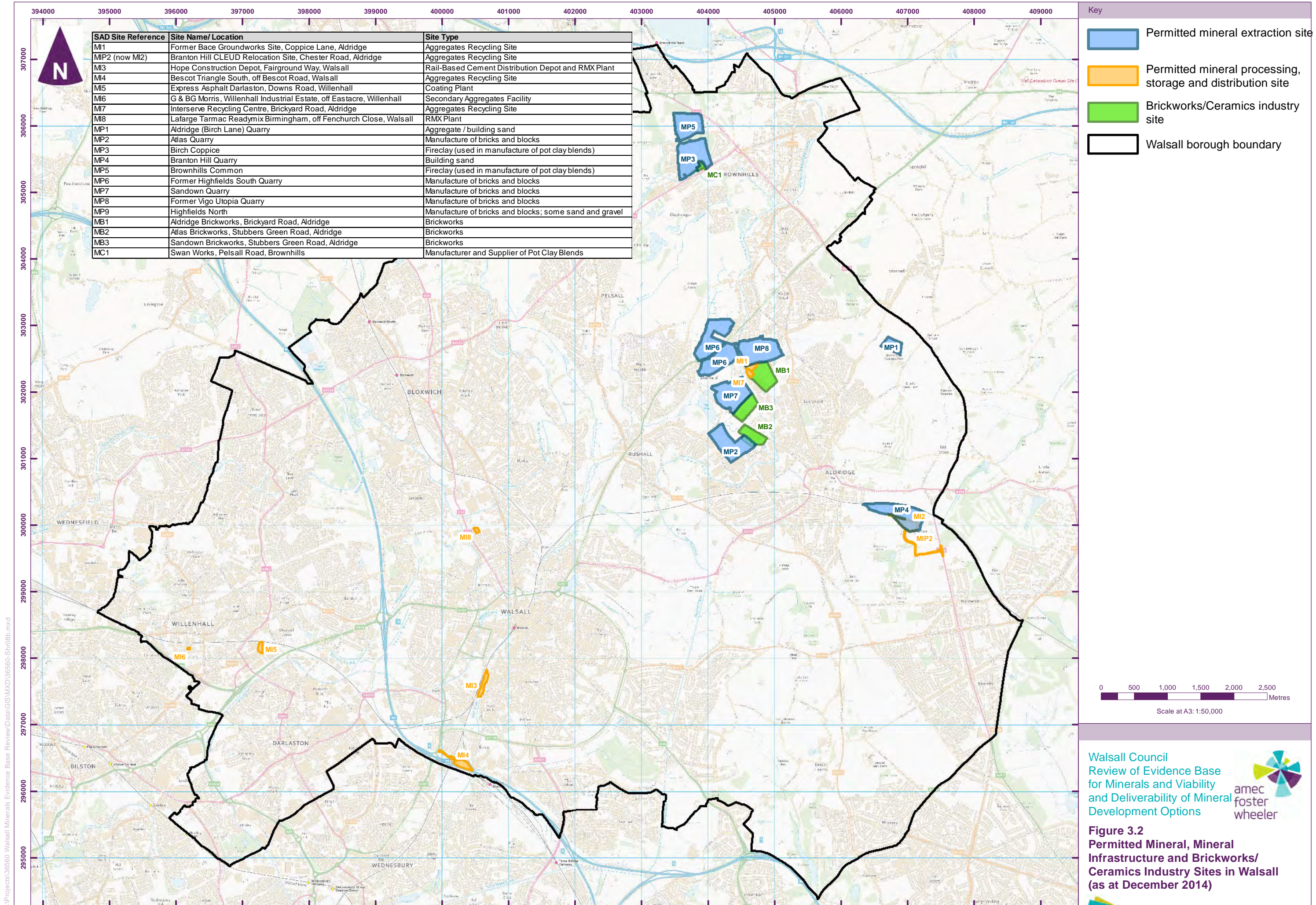


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Derived from 1:50,000 scale BGS Digital Data under Licence No. 2007/131E British Geological Survey © NERC. All rights reserved

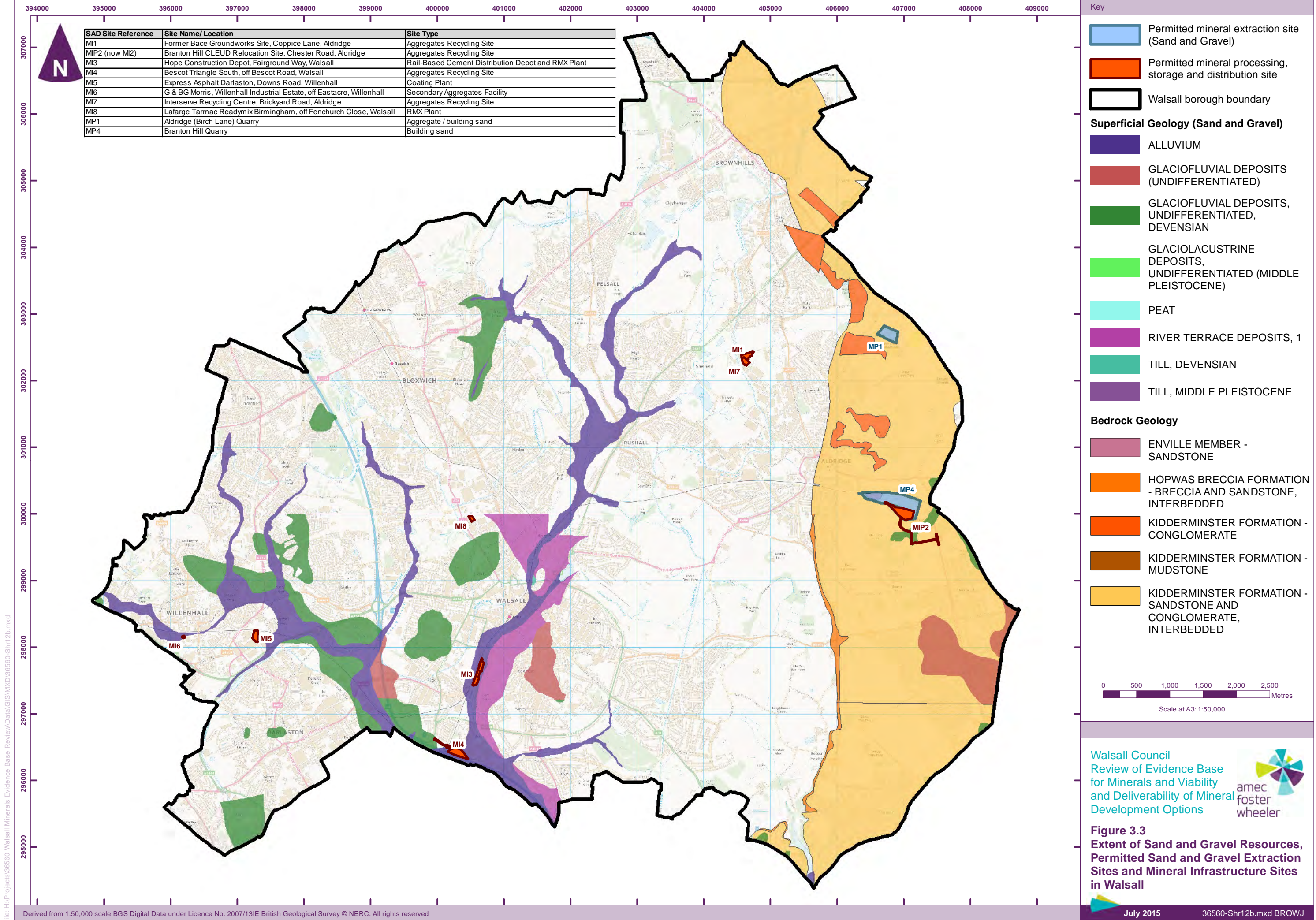
Walsall Council
 Review of Evidence Base
 for Minerals and Viability
 and Deliverability of Mineral
 Development Options

Figure 3.1
Map of Bedrock Geology in Walsall



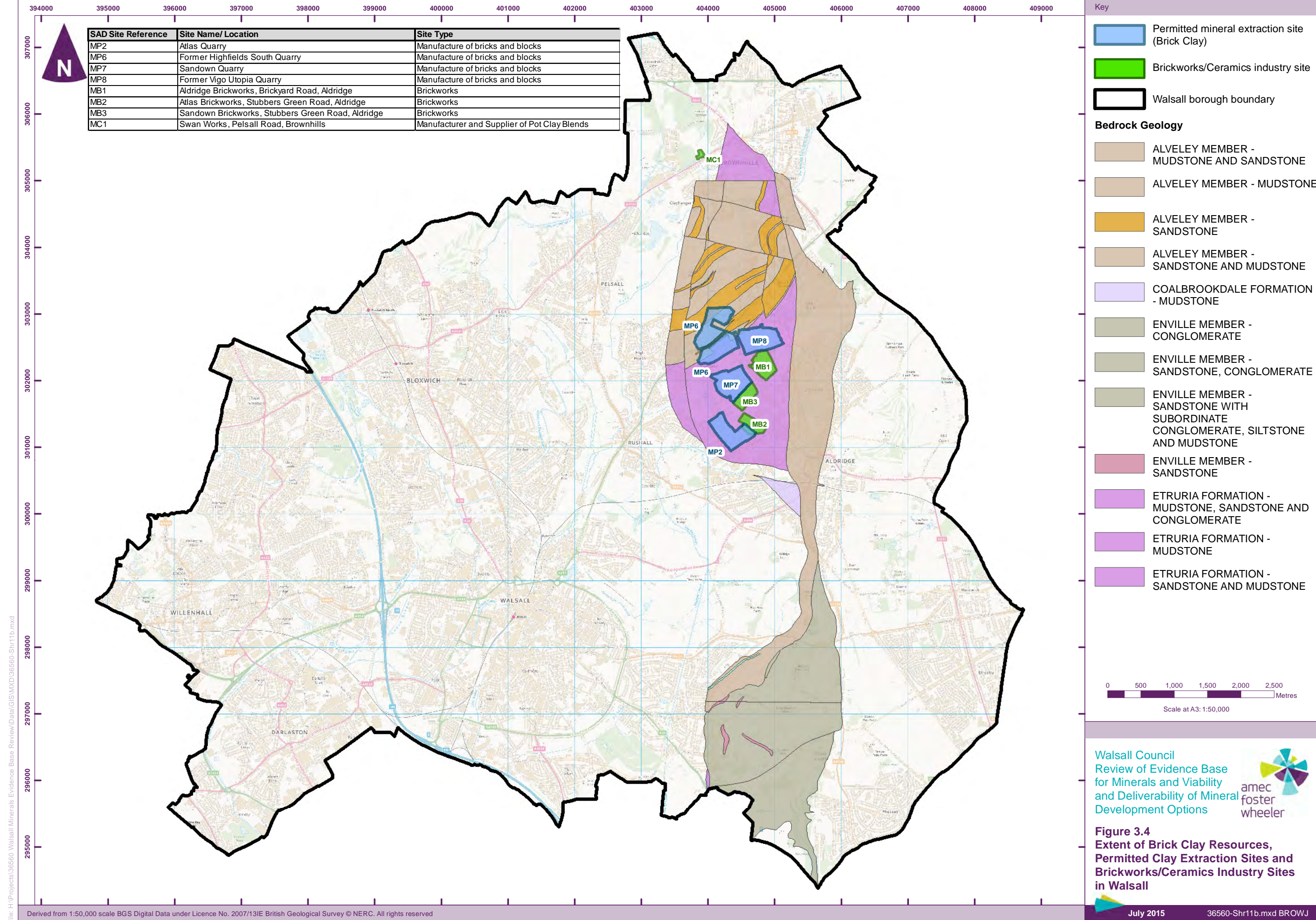
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Figure 3.2
 Permitted Mineral, Mineral
 Infrastructure and Brickworks/
 Ceramics Industry Sites in Walsall
 (as at December 2014)

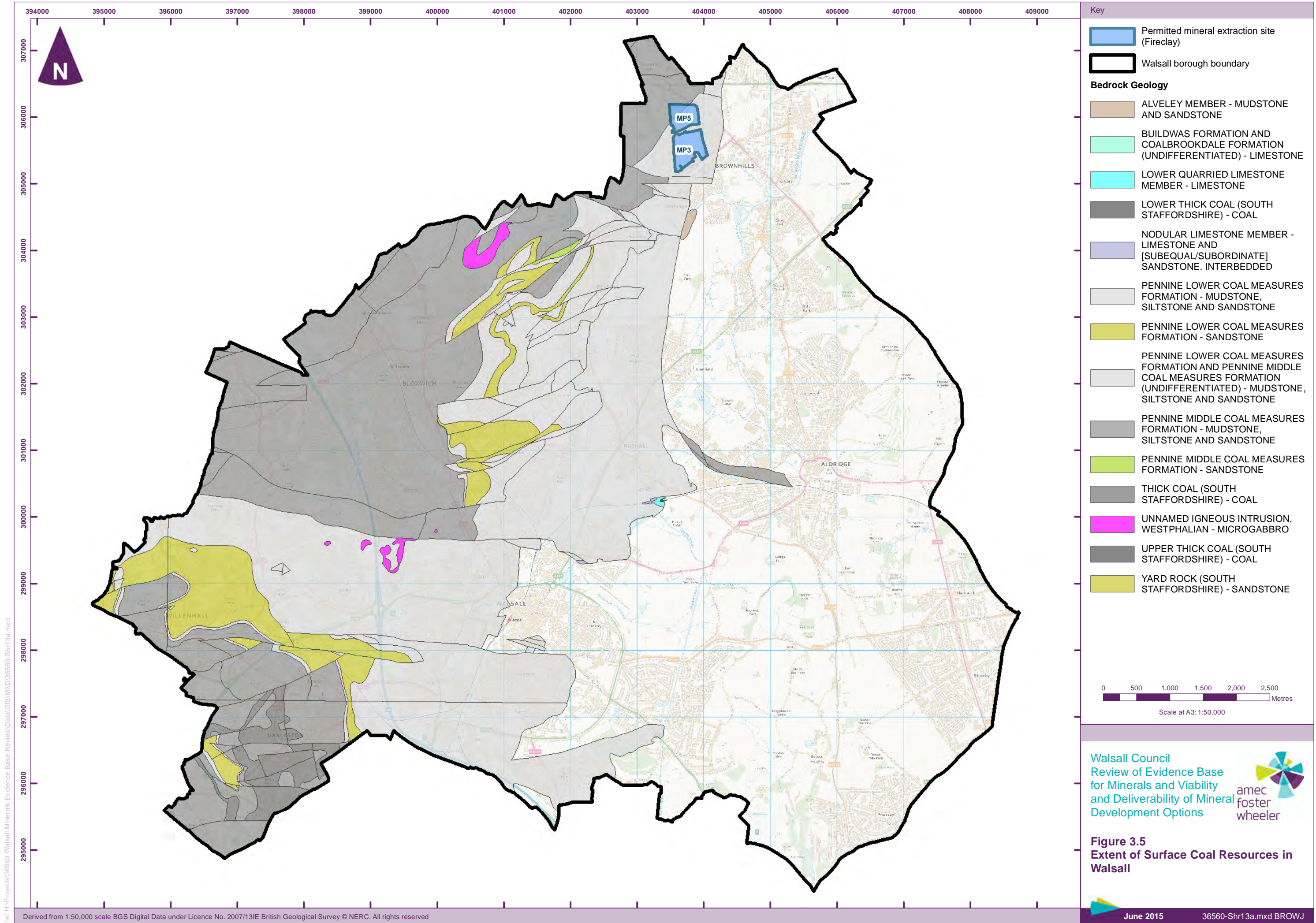


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Figure 3.3
 Extent of Sand and Gravel Resources,
 Permitted Sand and Gravel Extraction
 Sites and Mineral Infrastructure Sites
 in Walsall



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Figure 3.5
 Extent of Surface Coal Resources in
 Walsall

4 Economic Viability and Deliverability of Mineral Extraction Projects – Overview

4.1 Introduction

This section seeks to review the economic viability and deliverability of mineral extraction projects in the Walsall area as identified by the Council and/or third parties with a view to identifying any critical gaps likely to impact on the soundness of the SAD and AAP.

4.2 Methodology and Approach

In reviewing the economic viability and deliverability of mineral extraction projects in the Walsall area, Amec Foster Wheeler has sought to not only review the minerals evidence and the Council's approach to identifying areas of search for minerals extraction and potential site allocations, but has also utilised its GIS capabilities and expertise. As such, we have built up a GIS model of the Walsall area and using the digital information available have conducted both a bottom up and top down selection exercise to verify the potential minerals development proposals previously identified by the Council as well as seeking to identify any potential additional areas or sites in addition to verifying any potential (environmental) constraints. Any identified constraints have then been assessed to determine whether or not they could be mitigated, individually and/or cumulatively and what impact this may have on the viability and deliverability of a mineral development option.

Following the consultation on the SAD and AAP Issues and Options, the Council has identified a number of potential areas of search for mineral extraction (including some potential sand and gravel options not identified in the Issues & Options Report), and aggregate recycling site options. These are set out in Table 4.1 below.

Table 4.1 Council Identified SAD Potential Mineral Options (as at November 2014)

Site Name/Location	Mineral Type/Site Type	SAD Potential Mineral Option	SAD Ref	BCCS* Ref
Birch Lane, Aldridge	Sand & Gravel	Area of Search	MXA1	MA1
Branton Hill, Aldridge	Sand & Gravel	Area of Search	MXA2	MA2
Stubbers Green	Brick Clay (Etruria Formation)	Area of Search	MXA3	MA5
Yorks Bridge, Brownhills	Coal & Fireclay	Area of Search	MXA4	MA6
Druid's Heath, Aldridge	Sand & Gravel	Area of Search	MXA5	n/a
Hob's Hole Lane, Aldridge	Sand & Gravel	Area of Search	MXA6	n/a
Sandhills, Shire Oak	Sand & Gravel	Area of Search	MXA7	n/a
Daniel's Lane, Aldridge	Sand & Gravel	Area of Search	MXA8	n/a
Land near Aldridge Quarry	Sand & Gravel	Mineral Extraction Site	MPX1	n/a
Branton Hill Quarry Extension	Sand & Gravel	Mineral Extraction Site	MSP2	n/a
Recordon Land	Brick Clay (Etruria Formation)	Mineral Extraction Site	MPX3, CH94	n/a

Site Name/Location	Mineral Type/Site Type	SAD Potential Mineral Option	SAD Ref	BCCS* Ref
Land at Yorks Bridge	Coal & Fireclay	Mineral Extraction Site	MPX4, CH93	n/a
Land at Birch Lane, Aldridge	Sand & Gravel	Mineral Extraction Site	MPX5, CH12**	n/a
Highfields North	Brick Clay (Etruria Formation)	Mineral Extraction Site	MPX6 (MP9)***	n/a
Brownhills Common	Coal & Fireclay	Mineral Extraction Site	MPX7 (MP5)***	n/a
Former Bace Groundworks Site	Vacant Land	Aggregate Recycling Site	AR1	n/a
Branton Hill CLEUD Relocation Site	Former Quarry	Aggregate Recycling Site	AR2	n/a
Aldridge Quarry	Former Quarry	Aggregate Recycling Site	AR3 (MP1) ***	n/a

Source: Information provided by Walsall Council (2014)

* BCCS – Black Country Core Strategy

** This site was initially proposed as a potential housing site but has now also been put forward as a potential mineral extraction site as part of the Birch Lane Area of Search (MXA1).

*** Both Highfields North and Brownhills Common are also permitted minerals sites (MP5 and MP9) in that they are subject to 'dormant' old mineral permissions. Aldridge Quarry is also a permitted mineral site (MP1) but is currently closed in that working ceased in 2008 and the site is awaiting restoration (see Table 3.1).

For the purposes of the delivery and viability assessment, the Council has sought to group the SAD Minerals Site and Area of Search Options into 7 Area Options (A to G), to ensure a consistency of approach where options overlap or are in close proximity to others. The Area Options are outlined in Table 4.2 below and illustrated in **Figure 4.1**.

Table 4.2 SAD Minerals Site and Area of Search Options

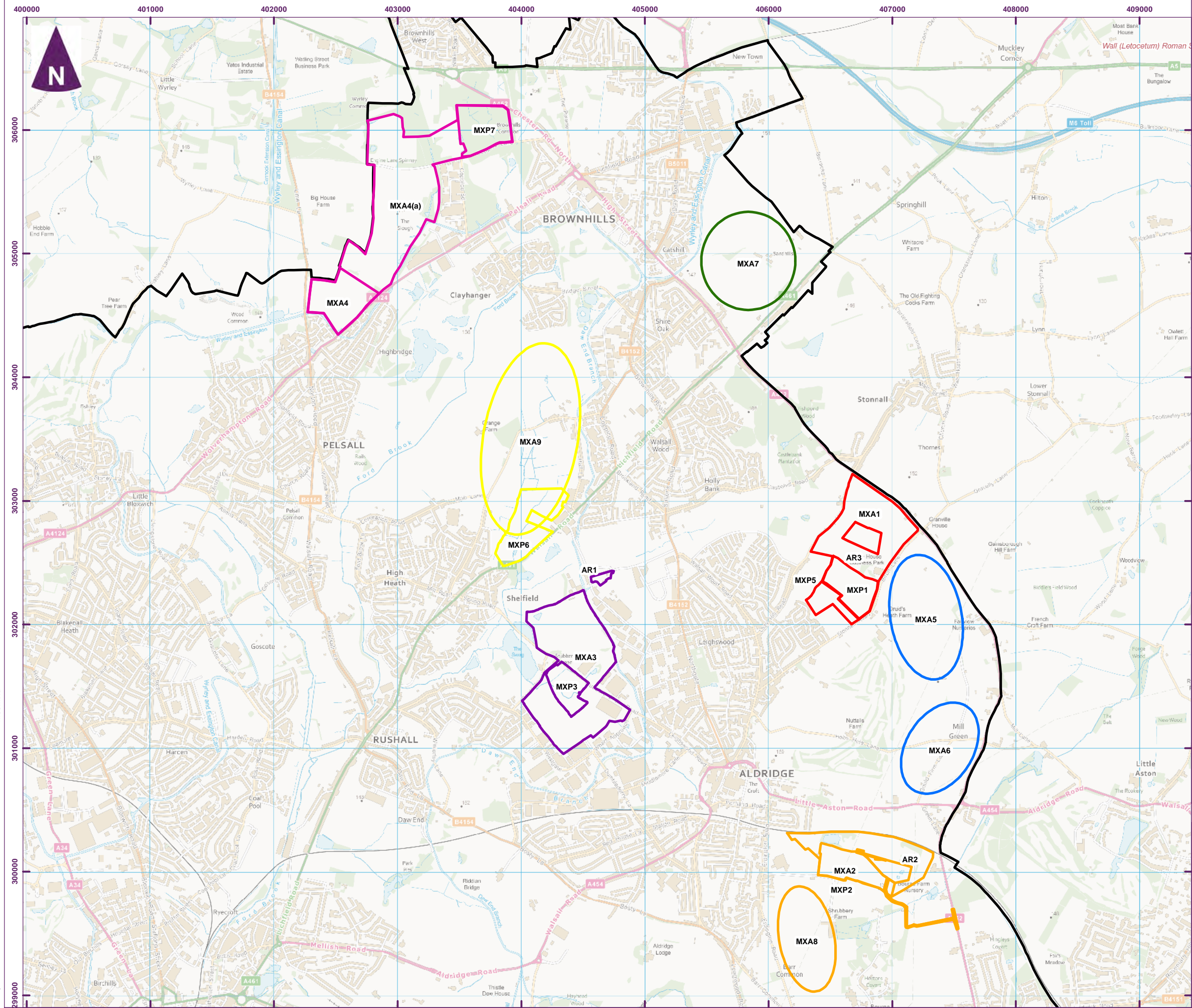
Area Reference	Site and Area of Search Option	SAD Minerals Options Included (Site Reference)
A	Birch Lane Area Options	Birch Lane Area of Search (MXA1) Land near Aldridge Quarry (MXP1) Land at Birch Lane, Aldridge (MXP5) Aldridge Quarry (AR3)
B	Branton Hill & Daniel's Lane Options	Branton Hill Area of Search (MXA2) Daniel's Lane Potential Area of Search (MXA8) Branton Hill Quarry Extension (MXP2) Branton Hill CLEUD Site Relocation Site (AR2)
C	West of Chester Road Area Options	Druid's Heath Potential Area of Search (MXA5) Hob's Hole Lane Potential Area of Search (MXA6)
D	Sandhills Area Options	Sandhills Potential Area of Search (MXA7)
E	Stubbers Green & Walsall Wood Area Options	Stubbers Green Area of Search (MXA3) Recordon Land (MXP3) Former Bace Groundworks Site (AR1)
F	Highfields North Area Options	Land North of A461 Potential Area of Search (MXA9) Highfields North (dormant site) (MXP6)
G	Yorks Bridge & Brownhills Area Options	Yorks Bridge Area of Search (MXA4(a)) Land at Yorks Bridge (MXP4) Brownhills Common (dormant site) (MXP7)

To facilitate the economic viability and deliverability assessment, the Council has developed a site assessment proforma, which has been reviewed by Amec Foster Wheeler. The proforma was adapted from those used to assess potential waste and employment site options in separate viability and delivery assessments being carried out in parallel with this study. The use of the proforma ensures there is a consistent approach to site assessment. As such, the proforma has been used to review existing as well as potential sites and areas of search as well as aggregate recycling sites. Completed proformas and supporting figures are included in **Appendix A** and summarised in the subsequent sections.

4.3 Review Findings

The assessments for each of the identified areas of search and potential site allocations are summarised in the subsequent sections of the report, as outlined below, with detailed assessment proformas and supporting figures appended at **Appendix A**:

- ▶ Section 5: Aggregate Recycling Facilities;
- ▶ Section 6: Primary Land Won Sand & Gravel;
- ▶ Section 7: Brick Clay;
- ▶ Section 8: Fireclay; and
- ▶ Section 9: Coal Bed Methane and Shale Gas.



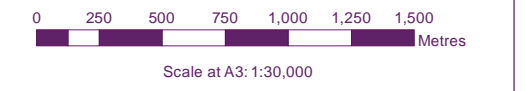
Key

Walsall borough boundary

SAD minerals site and area of search option

Area reference

- A - Birch Lane
- B - Branston Hill
- C - West of Chester Road
- D - Sandhills
- E - Stubbers Green and Walsall Wood
- F - Highfields North
- G - Yorks Bridge and Brownhills



Walsall Council
 Review of Evidence Base
 for Minerals and Viability
 and Deliverability of Mineral
 Development Options

Figure 4.1
 SAD Minerals Site and Areas of Search
 Options

5 Aggregate Recycling Facilities

5.1 Introduction

This section seeks to review the aggregate recycling facilities, both existing and proposed, in the Walsall area as identified by the Council and/or third parties with a view to identifying any critical gaps likely to impact on the soundness of the SAD and AAP.

5.2 Methodology and Approach

When planning for future aggregate supplies, national policy guidance requires minerals planning authorities to “so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials” (NPPF paragraphs 143 and 145, see Section 2.4 above). This was the approach followed in the Core Strategy⁵. It is also assumed in the ‘National and regional guidelines for aggregates provision in England 2005 – 2020’ (2009) that a proportion of the requirements over the guideline period will be met from ‘alternatives’ to primary land-won and marine-dredged aggregates.

The evidence reviewed during the preparation of the Core Strategy included the latest national aggregates survey, which indicated that the main source of ‘alternatives’ is recycled construction demolition and excavation waste (CD&EW)⁶. However, it was also noted that secondary materials, such as aggregates produced as a by-product of quarrying other minerals, and industrial/ other by-products (e.g. spent rail ballast, road planings, incinerator bottom ash (IBA), coal-fired power station ash, metallurgical slag, spent foundry sand, and glass), are also used as substitutes for primary aggregates for various purposes, including as general construction fill, and in the manufacture of concrete products and coated products⁷.

Evidence post-dating the Core Strategy preparation, such as the ‘Collation of the Results of the 2009 Aggregate Minerals Survey for England and Wales’ (October 2011) by BGS and CLG, does not include any assessment of the contribution from recycled CD&EW and has only a superficial review of the contribution from secondary materials (see Table 2a). Current evidence in Walsall (see Section 5.3 below) suggests that the scope for increasing production of aggregates from secondary sources is negligible. Hence this study has focused on evaluating potential site options for recycling of CD&EW.

Through the SAD Issues and Options consultation, the Council has identified three potential aggregate recycling facility sites, namely:

- ▶ Former Bace Groundworks Site (AR1) – a permitted aggregates recycling site that is currently vacant;
- ▶ Branton Hill CLEUD Site Relocation Site (AR2) – a permitted aggregates recycling site. At the time of the Issues and Options consultation (April 2013), the site was subject to a planning application to relocate an existing aggregate recycling facility plus a new haul road to serve the quarry and recycling facility (11/0943/FL), permission for which has since been granted; and
- ▶ Aldridge Quarry (AR3) – a permitted sand and gravel quarry which closed in 2008 but has yet to be restored. Several years ago, an application to allow aggregate recycling at the site was refused on the grounds that it would delay restoration of site, with consequential impacts on landscape character and Green Belt.

⁵ See: Section 3.1 of “Black Country Core Strategy Minerals Background Paper 2” (2010), Black Country Authorities.

⁶ See: “Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005” - Construction, Demolition and Excavation Waste and Other Materials (February 2007), Capita Symonds in association with WRc plc for CLG.

⁷ See: The Sustainable Use of Resources for the Production of Aggregates in England (2006), WRAP; Aggregate Resource Alternatives: Options for future aggregate minerals supply in England (2008), British Geological Survey for MIRO and Defra; and Construction Aggregates - Mineral Planning Factsheet (Jun 2013), British Geological Survey.

No additional sites have been identified by either the minerals or waste industry and/or third parties in response to the SAD and AAP call for sites and Issues and Options consultations, specifically for the recycling of construction, demolition and excavation waste or the production of aggregates from other secondary and/or recycled materials.

Production of secondary and recycled aggregates, as well as being minerals related, is also related to waste management, and in particular whether by-product materials, construction, demolition and excavation waste (CD&EW) or other waste is recycled and/or reused as an aggregate. Delivery of requirements for recovery of waste from other streams is dealt with separately in the SAD and AAP; indeed the Council has commissioned a separate review of the viability and deliverability of waste recovery infrastructure on employment sites, including four sites considered to have greatest potential. This forms part of the Walsall Site Allocation and CIL Deliverability and Viability Study by DTZ in association with Wardell Armstrong, which has been carried out in parallel with this minerals study.

Chapter 8 of the SAD Issues and Options Report deals with waste issues and identifies that there are currently four sites with planning permission or a lawful use for CD&EW recycling, one of which is the currently vacant former Bace Groundworks Site (AR1). The SAD Issues and Options Report suggests there is some anecdotal evidence that CD&EW from Walsall is being managed at facilities in neighbouring authority areas, such as Cranebrook and Shire Oak quarries in Lichfield District in Staffordshire which are both located near to the Walsall borough boundary, as well as at unauthorised/temporary land disposal sites in Essington in South Staffordshire District in Staffordshire, also near the Borough boundary. The Issues and Options Report goes on to state that this suggests that there may be scope to manage more CD&EW arising in Walsall locally by increasing CD&EW recycling capacity thereby helping to meet local and national requirements for construction aggregates, whilst on the other hand competition from existing facilities could mean that new facilities in Walsall may not be economically viable.

5.3 Background / Context

The Need for Aggregates Recycling Facility Allocations

A potential omission in the evidence base supporting (or otherwise) the allocation of aggregates recycling facilities in the SAD and AAP is the absence of any form of need assessment.

National Planning Policy (NPP) for Waste (October 2014) states, at paragraph 3, that Waste Planning Authorities should prepare Local Plans which identify sufficient opportunities to meet the identified needs of their area for the management of waste streams (in this case, construction, demolition and excavation waste (CD&EW)). However, these 'needs' are undefined in the Core Strategy.

The BCCS sets out in Policy WM3 and its supporting text that it has been unable to quantify at present, the number of construction, demolition and excavation waste facilities required in the Black Country area over the plan period. It does however state at paragraph 7.41 that:

*"There is evidence that CD&EW will grow over the plan period... Furthermore,... nearly all of the Black Country's requirements for construction aggregates are expected to be met from secondary and recycled materials (see MIN2), suggesting that more urban quarries are likely to be needed, although it is not clear how many facilities will be required. **Each Black Country Authority will therefore need to consider future requirements for CD&EW recycling / urban quarries, and plan for these in other DPDs.**"*

[Amec Foster Wheeler highlight]

Current local plan policy is therefore clear, that site allocations for aggregates recycling facilities and future decisions on the acceptability of such development proposals must be considered in the context of 'need'. However, the BCCS fails to clearly identify these needs, but instead, looks to the relevant Local Plans to develop specific need assessments for their respective localities. With these points in mind, it is recommended that the Walsall AAP and SAD seek to consider the **need** for aggregates recycling facilities in conjunction with an assessment of the potential suitability of sites and therefore future plan allocations.

Bearing this in mind, the Council has reviewed the evidence for the future 'need' for such facilities in Walsall over the plan period, having regard to the evidence gathered for the Core Strategy on projected CD&EW

arising and existing recycling capacity, and other relevant information which has become available more recently. The results are summarised below.

CD&EW – Projected Future Arisings

The evidence gathered for the Core Strategy includes projections of projected CD&EW arisings at the end of the plan period (2025/26), derived from various sources. These were all projected from estimated 'baseline' arisings, each based on different baseline estimates and development scenarios. These are summarised in Appendix 2 to the Hearing Statement prepared by the Black Country Authorities for the Core Strategy Examination⁸ and are outlined below.

The BCCS Waste Planning Study (BCWPS) by Atkins (2009) estimated that around 1.45 million tonnes of CD&EW arose in the Black Country in 2007/08, of which around 0.24 million tonnes arose in Walsall. However, the West Midlands Regional Landfill Capacity Study 2009 Update (2009 WM Landfill Study) by Scott Wilson (2009) estimated that around 1.62 million tonnes of CD&EW arose in the Black Country in 2007/08, of which around 0.31 million tonnes arose in Walsall. Both sets of 'baseline' estimates were derived from the 2005 Capita Symonds survey, which was the most up-to-date information available at the time. The variations in the estimated 'baseline' arisings, and variations in the assumptions on net changes to arisings over the plan period, have resulted in wide variations in the projections. These range from no net change from baseline in the Black Country or in Walsall (BCWPS) to 2.27 million tonnes in the Black Country, and 0.52 million tonnes in Walsall (2009 WM Landfill Study).

There have been no national surveys or studies into CD&EW arisings which have generated sub-national arisings figures since the 2005 study by Capita Symonds, on which updated estimates of arisings could be based. The studies that have been undertaken were aimed principally at establishing whether England is likely to meet the recycling target for inert construction and demolition waste in the Waste Framework Directive. Consequently, data on actual tonnages of CD&EW arising annually in the Black Country are not available, although recent trends in national arisings since 2005 suggest that arisings in England fell between 2005 and 2008, and that there has been no significant change in arisings between 2008 and 2012⁹. However, it is possible that arisings have increased as a result of recent activity post-recession.

The only source of data available on the CD&EW stream at a local level is the Environment Agency Waste Data Interrogator, which records inputs and outputs of controlled 'Inert C&D' waste into permitted waste sites. It should be stressed that this is not a reliable 'proxy' for the tonnage of CD&EW arising, because it only records the tonnages of waste entering and leaving permitted sites in a given area, which will not necessarily have arisen within the same area. While in some cases, the originating authority or former region is recorded, this is not always the case, and it is not possible to generate data by originating authority from the Interrogator, even where it is recorded. The Interrogator also does not record waste managed under 'exemptions', which in the case of CD&EW, is likely to be significant.

However, as this type of waste does not tend to travel very far, the changes in tonnages of 'Inert C&D' waste input into permitted sites year on year may give a broad indication of trends in construction activity and the generation of waste from this stream in the West Midlands conurbation – including the Black Country. Data collated by the Council shows that inputs of 'Inert C&D' waste into permitted sites in the Black Country fell between 2007 and 2008, probably as a result of the economic recession. While inputs increased between 2010 and 2012, during the period of economic recovery, they are still slightly below the levels recorded in 2007. In broad terms, this is consistent with the national trends in CD&EW arising annually over the same period. This suggests that the tonnage of CD&EW arising in Walsall is not likely to increase significantly in the short-term, although there is potential for growth in CD&EW later on in the plan period, if the rate of development increases.

⁸ See: Section 2.2, Table W2 of "Black Country Core Strategy Waste Background Paper 2 (2010)", Black Country Authorities. See also Appendix 2, Table A2.3a of Black Country Core Strategy Examination: Hearing Statement by Black Country Authorities on Matter 8: Minerals.

⁹ See: Table 7.1 of "Construction, demolition and excavation waste arisings, use and disposal for England 2008" by Capita Symonds for WRAP, and Figure 2.1 of "Digest of Waste and Resource Statistics: 2015 Edition (2015), Defra.

Secondary and Recycled Aggregates Production – Existing Capacity

The Core Strategy 'baseline' evidence estimated that in 2008, 'fixed' recycling facilities (also referred to as urban quarries) in the Black Country had sufficient capacity to produce around 0.8 million tonnes of secondary and recycled aggregates (including recycled soil) per annum¹⁰. However, this was only an estimate, based on the best information that could be obtained at the time. Information on production of secondary and recycled aggregates is notoriously difficult to come by, because a lot of CD&EW recycling is happening on-site rather than at 'fixed' sites.

Annual surveys of quarries and other secondary and recycled aggregate producers by the West Midlands Aggregates Working Party (AWP) have up to now generated incomplete data, because of poor response rates¹¹. The most recent annual monitoring by the Council suggests that the Core Strategy 'baseline' estimate of secondary and recycled aggregate production capacity at 'fixed' sites in the Black Country may have been over-estimated. Taking into account vacant sites and new facilities developed recently in Dudley (Ketley Quarry) and Walsall (Interserve MRF in Aldridge), the combined capacity of 'fixed' secondary and recycled aggregate production sites in the Black Country is currently (2014) estimated to be around 0.74 million tonnes¹².

The Council has recently reviewed its evidence on the capacity of 'fixed' secondary and recycled aggregate sites. The Issues & Options Report identifies some sites that were not included in the Core Strategy (see SAD Issues & Options Report Table 9.1a, and Table 3.2 as well as Figure 3.2 of this report). Walsall currently has only one small site processing secondary materials and very few CD&EW recycling sites, two of which are vacant, whose potential has been evaluated as part of this study (see Sites AR1 and AR2 below). Information gathered by the Council for recent AWP annual surveys indicates that neither of the active clay pits in Walsall (Atlas and Sandown) produces aggregates as a by-product. Walsall has no incinerators or power stations and the Borough's foundries and forges do not appear to be a significant source of industrial by-product material. The Council's Highway Asset Manager has also confirmed that more than 90% of the CD&EW generated by the Council's road maintenance programme is recycled.

The evidence currently available suggests that 'fixed' sites generate a relatively small proportion of the secondary and recycled aggregates produced, although they are likely to be generating a higher quality product with a wider range of applications. Data obtained from the National Federation of Demolition Contractors (NFDC) suggests that a high proportion of re-used and recycled hardcore generated in England and Wales is generated through on-site recycling using mobile crushers, rather than by demolition contractors, waste operators, mineral operators and others at 'fixed' recycling and processing sites. Figures published in the 2008 national CD&EW survey report suggest that nearly 80% of the re-used or recycled hardcore generated by NFDC members in England and Wales in 2008 was generated through on-site recycling¹³. This suggests that the future 'need' for new 'fixed' recycling sites is likely to be limited unless there is a significant increase in demolition and land remediation activity.

Aggregate Recycling Facilities – Conclusions on Need

The 'baseline' evidence on the need for aggregates recycling infrastructure in the Black Country outlined above is far from robust, and this was acknowledged in the Black Country Authorities' Hearing Statement on

¹⁰ See: Justification to Policy MIN2, paragraphs 8.18 – 8.21, Black Country Core Strategy 2011, see also Appendix 2 of Black Country Core Strategy Examination: Hearing Statement by Black Country Authorities on Matter 8: Minerals (2010).

¹¹ See: Paragraphs 4.3 – 4.5 of West Midlands Aggregates Working Party Reports: 2011 & 2012 Combined (2014)

¹² Information provided by the Council, which is expected to be presented in forthcoming West Midlands Metropolitan Area Local Aggregates Assessment and Walsall Local Plan Monitoring Report (Authority's Monitoring Report) 2014.

¹³ See: "Construction, demolition and excavation waste arisings, use and disposal for England 2008" by Capita Symonds for WRAP, Section 2.4, which suggests a 78% on-site recycling rate for NFDC members in England and Wales in 2008 (21.62 million tonnes of re-used or recycled hardcore generated, of which 16.93 million tonnes was on-site).

Matter 8: Minerals (2010). In their report, the Inspectors who examined the Core Strategy agreed that the BCCS policies on CD&EW recycling (as modified) were “soundly based”¹⁴.

The information outlined above shows that the evidence base for ‘need’ has not changed substantially since the Core Strategy was examined, and that it is still not possible to quantify future requirements for aggregate recycling infrastructure in Walsall with any confidence. It is anticipated that the evidence base will be updated – and where possible enhanced – through future LAAs, and as part of the evidence-gathering process for the Core Strategy review.

In the meantime, this study has considered the viability and deliverability of developing new aggregates recycling facilities on the sites identified by the Council as potential options.

Aggregates Recycling Facilities – Development of Options

The Issues & Options Report (2013) identified only two potential options for aggregates recycling:

- ▶ MIP1: Branton Hill CLEUD Relocation Site – proposed relocation of an existing recycling facility at a sand and gravel quarry to another part of the permitted area; and
- ▶ MIP2: Former Moxley Tip – derelict former landfill site requiring remediation, under consideration for relocation of an existing (unlawful) recycling operation being carried out on another site.

While no objections were received to the Branton Hill proposal, there were a number of objections to the Moxley Tip proposal from nearby residents, on the grounds that the site is unsuitable because of its proximity to housing, and because it would prejudice alternative housing proposals. Planning permissions have now been granted for two alternative schemes on the site: one involving housing development and open space and the other involving employment development and open space. Redevelopment with on or other of these uses is considered by the Council to be preferable to a waste management development, so this is no longer being considered as an aggregate recycling site.

In its response to the Issues & Options consultation, Staffordshire County Council expressed concern about deficiencies in sand and gravel supplies in Walsall, which were re-iterated in subsequent discussions under the “duty to co-operate.” It was identified that significant amounts of CD&EW from Walsall are being recycled at sites in Staffordshire, and the County Council considers that more should be done to identify suitable sites in Walsall where recycling of this waste can take place.

However, as noted at 5.2 above, no new sites were put forward for aggregate recycling during the Issues & Options consultation. The Council also contacted the aggregates industry, the waste industry and the NFDC at the end of 2013, to invite them to put forward proposals for aggregates recycling, but this did generate any new options either. The only options the Council has been able to identify are site MIP1: Branton Hill CLEUD Relocation Site, which has now received planning permission, another permitted mineral infrastructure site that has been vacant for some time (MI1: Former Bace Groundworks Site), and a former quarry which has previously been proposed as a recycling site (MP1: Aldridge Quarry).

5.4 Review Findings

Each of the potential aggregate recycling site allocations have been assessed in terms of their viability and deliverability. The results of that assessment are summarised below, whilst completed assessment proformas and supporting figures are attached in **Appendix A**.

AR1: Former Bace Groundworks Site

This site is located on the corner of Coppice Lane and Brickyard Road and covers an area of just over 1 hectare (ha) (see **Figure A5**). Although currently vacant, the land has planning permission for CD&EW recycling and was previously part of the Aldridge Brickworks stockyard. The Aldridge Brickworks and

¹⁴ See: Matter 8: Minerals, Part v), paragraph 135 of “Report on the Examination into the Black Country Core Strategy Development Plan Document” (2010).

Interserve MRF¹⁵ are located to the south of the site, whilst the Vigo/Utopia leachate treatment and landfill gas plant are located to the north on the opposite side of Coppice Lane. The site is located on the fringes of the Aldridge employment area as identified in the BCCS (Policy EMP3).

The site has been identified in the SAD Issues and Options Report as a Mineral Infrastructure Site (MI1) in that the site is vacant with planning permission for aggregate recycling. The site is also identified as a potential industrial site in the 2012 Walsall Employment Land Review (IN9.8: Coppice Lane) and has been included in the Walsall industrial land supply in the Walsall Site Allocation and CIL Deliverability and Viability Study (forthcoming). Until recently the site was being marketed by GVA, but the Council has reported that it has recently (2015) been taken off the market.

The Site Allocation and CIL Deliverability and Viability Study considers that the site has some potential for development for industry or enclosed waste recovery operations, given that there are similar uses in the vicinity. However, despite the extant planning permission for aggregates recycling, any new operations on the site would need to take account of the site's size; at only just over 1 ha the site is relatively small with apparent little scope for expansion given the surrounding minerals and waste land uses.

AR2: Branton Hill CLEUD¹⁶ Relocation Site

The site is located off the A452 Chester Road and covers an area of 4.67 ha (see **Figure A2**). Located within the permitted area of Branton Hill Quarry, the proposed area has been subject to partial infilling with inert waste although the restoration has not been completed and the area is now derelict. Located in the Green Belt, the site is subject to proposals to consolidate and relocate the existing recycling areas within the quarry combined with a new quarry access road direct onto the A452 Chester Road.

Planning permission for the relocation of the recycling facilities was granted subject to conditions in October 2013 (13/0943/FL). The permitted throughput is 25,000 tonnes per annum, however this does not represent any net gain in production capacity over and above the annual throughput of the CLEUD areas when they were in operation in that this was estimated to be around the same.

The operator of Branton Hill Quarry went into receivership in May 2013 and the quarry has since closed. The owner is currently seeking to sell the site and the surrounding land in his ownership, including the proposed quarry extension (MXP2). Unless a buyer and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of an aggregate recycling activity at the site. In addition to environmental constraints in relation to groundwater and risk of surface water flooding, a further constraint on the viability and deliverability of the site is the requirement for implementation of the new access road. This is partly dependant on the 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry¹⁷.

The viability and deliverability of the site is therefore not only dependent upon the development of the haul road and the associated enabling development of Bourne Farm, it is also dependent upon the sale of the site and whether or not there is an interest by the minerals industry to develop the site for aggregate recycling.

AR3: Aldridge Quarry

Aldridge Quarry is a former sand and gravel quarry, which is located on the north-eastern edge of the Aldridge urban area and accessed off Birch Lane (see **Figure A1**). It has been identified by the Council as a potential aggregates recycling facility on the basis of its previous planning history.

The 4.4 ha site is well screened from the surrounding area by established tree planting and site levels. The quarry closed in 2008 and was originally an extension to a previous quarry which has in part been restored back to agricultural use with some of the site developed for commercial use. Final restoration of the former

¹⁵ MRF – Materials Recycling Facility

¹⁶ CLEUD – Certificate of Lawful Existing Use or Development

¹⁷ This scheme is covered by separate permissions 06/0169/OL/E4 and 13/1033/TE. These permissions and 13/0943/FL are all subject to a S106 agreement which stipulates that the new quarry access road approved under 13/0943/FL must be built and brought into use before the recycling area can be relocated or the housing development can start.

quarry to previous ground levels by inert landfilling has yet to be commenced, let alone be completed. As such, the site is still being identified as an existing Permitted Mineral Site in the SAD.

The existing planning permission prohibits on-site aggregates recycling and a previous application in 2002 by the operator to vary the relevant condition to allow the recycling of CD&EW waste (02/1376/M1/M1) was refused on appeal with the Inspector's decision to dismiss the appeal upheld following a High Court Challenge in 2005¹⁸. The dismissed application was based on an estimated throughput of 25,000 tonnes per annum for aggregate recycling. In dismissing the appeal, the Inspector concluded:

"... that the proposed processing plant would be an inappropriate development in the Green Belt, harmful to it by definition, compromising openness and adding to urban sprawl. Whilst the temporary nature of the proposal and the benefits of recycling aggregates weigh in favour of the proposal, neither these nor any other advantages of the proposal amount to the very special circumstances necessary to outweigh the harm to the Green Belt which would arise if the development were to be permitted. ..." (Appeal Decision APP/V4630/A/03/1136387).

The potential to develop an aggregate recycling facility at the site would appear to be dependent on the progression of the restoration of the former quarry. Although a restoration programme involving infilling with imported inert waste was mostly approved 'in principle' by the Council in 2003, and the site has an inert landfill permit, no further progress has been made on restoring the quarry since it closed in 2008. After the length of time that has elapsed since the quarry closed, it is possible that alternative methods of restoration may be considered through the ROMP (which will become due in April 2016).

The viability and delivery of an aggregate recycling facility may be further constrained by access issues. In addition, there have been a large number of objections from local residents to future minerals and waste operations in this area which in itself is likely to be a major constraint on the ability to bring forward a recycling scheme associated with a restoration programme at the site.

Aside from the above constraints, assessing the viability and deliverability of this potential site also needs to give due consideration to the locational criteria for aggregate recycling facilities as set out in national planning policy guidance. Notably, paragraph 4 of NPPW (2014) states that waste planning authorities should "consider a broad range of locations including industrial sites, looking for opportunities to co-locate waste management facilities together and with complementary activities". As such, aggregate recycling facilities could be co-located with operational quarries. In this case, however, the former Aldridge Quarry has already ceased to operate, as such the primary objective for the Council now is to ensure that the "high quality restoration and aftercare" takes place and the site is restored "at the earliest opportunity" (NPPF paragraph 143, 8th bullet). When granting permission for any future proposal the Council must also take into account cumulative effects of working (NPPF paragraph 144, 3rd bullet). These are likely to be key considerations in the viability and deliverability of an aggregates recycling facility at this site.

Review of Potential Waste Site Options

In evaluating the potential for aggregates recycling in Walsall, due regard has also been given to the emerging findings of the aforementioned Walsall Site Allocation and CIL Deliverability and Viability Study, which has included an assessment of the suitability of four sites for enclosed waste recovery infrastructure¹⁹.

The study, as well as reviewing existing waste management infrastructure sites, also assessed the suitability of industrial sites for waste management uses, in particular whether they would be suitable for enclosed waste facilities which could (in theory) include specialised enclosed aggregate production from secondary or recycled sources. The draft report which has been reviewed advises that sites need to be at least 1.5 hectare in size to be attractive to waste operators, and in some cases sites may need to be considerably larger. Aggregate recycling facilities are likely to require even larger sites to allow for external stockpiling,

¹⁸ The application sought to vary three Conditions. The appeal against refusal of variation of Conditions 4 and 23 (e), relating to the end date for mineral extraction and the duration of landfilling operations, was upheld. The appeal against refusal of the variation of Condition 23 (f), which prohibits on-site CD&EW recycling, was dismissed.

¹⁹ Walsall Site Allocation and CIL Deliverability and Viability Study (forthcoming), DTZ, in association with Wardell Armstrong.

and in practice are difficult to enclose within a building. As such, aggregate recycling facilities are typically located on more open sites, which may be difficult to accommodate on industrial land in an urban area.

Finding a suitable site in an urban area must therefore seek to strike a balance between the proximity to CD&EW arisings and final markets for the end use of the secondary and recycled aggregates, and locating a potential disruptive use in an established urban location and any associated amenity concerns. The BCCS acknowledges that in light of expected growth in CD&EW and the expectation that nearly all of the Black Country's requirements for construction aggregates are to be met from secondary and recycled materials, more 'urban quarries' are likely to be needed, although the exact number of facilities remains unclear. As such, the principle of developing further 'urban quarries' in the Black Country is set out in BCCS Policies WM1, WM4 and MIN2. Nevertheless, there are challenges in finding suitable sites for aggregate recycling facilities in urban locations such as Walsall.

The study evaluated four potential waste site options identified by the Council, two of which were subject to planning permissions for waste management uses, and two of which had been put forward for waste management uses (amongst others) by the land owner in response to a 'call for sites'. While three of these sites are considered to be suitable for an enclosed waste recovery facility, they are not likely to have potential for aggregates recycling due to their size or because of other constraints:

- ▶ Site WP2: Fryers Road has an existing planning permission for a different type of facility (energy recovery plant) which the applicant is intending to implement, and is therefore unlikely to be available for such a use.
- ▶ Site WP10: Cemetery Road was until recently in use as an unauthorised open air waste transfer station and CD&EW recycling facility, but has now been vacated following enforcement action and prosecution of the former operator by the Council. This site is considered to be unsuitable for open air CD&EW recycling because of its proximity to housing and other sensitive receptors.
- ▶ Site WP4: Land at Kendricks Road, is less than 1.5 ha in size²⁰ and is also close to existing residential properties so would not be able to accommodate a large or complex waste operation, although it may support a smaller scale specialist waste use. This site is therefore very unlikely to be capable of accommodating an aggregates recycling operation.

The study also evaluated the potential of the twenty-four industrial sites which make up Walsall's industrial land supply, to establish whether there is sufficient flexibility within the industrial land portfolio to meet unidentified requirements for waste infrastructure that may come forward in the future (see Part 3 of study report, Chapter 5, Table 1). Of the sites assessed, nine are considered to have potential to accommodate an enclosed waste recovery facility. However, two of these sites are near or adjacent to sensitive receptors, which is likely to rule them out as being suitable for aggregates recycling. A further two sites, including IN9.8: Coppice Lane (Former Bace Groundworks Site – see AR1 above) are less than 1.5 ha in size, and are therefore unlikely to be attractive to the aggregates industry.

This leaves five industrial sites which could have potential for enclosed waste recovery uses:

- ▶ IN12.14: Former McKechnie's, Middlemore Lane, Aldridge;
- ▶ IN27.1 – IN27.3: Newfield Close, Bloxwich;
- ▶ IN311: Keyway Retail Park, Willenhall;
- ▶ IN315: Casino & Cinema, Bentley Mill Way, Darlaston; and
- ▶ IN92: Aspect 2000, Bentley Mill Way, Darlaston.

However, Council officers have advised that secondary and recycled aggregates production is unlikely to be supported on any of the above sites, even if facilities are enclosed within a building, because they form part of Walsall's current industrial land supply, and therefore need to be reserved for mainstream Class B industrial uses or enclosed waste recovery operations compatible in an industrial location.

²⁰ Although the site is part of a larger industrial site (IN99.1: Station Street East).

5.5 Conclusions

Through the review of existing and proposed aggregate recycling facilities, no apparent critical gaps have been identified other than the need to ensure the issue of aggregate recycling is cross referenced in the work being undertaken to support the other SAD & AAP viability and delivery studies.

Although there are existing CD&EW facilities located near to the administrative boundary of Walsall in Staffordshire, in line with national planning policy guidance the Council should seek to make appropriate provision for aggregates recycling facilities either by means of site allocations (where feasible) or through the inclusion of an appropriate criteria based policy (where not). Of the three sites which have been identified through the SAD & AAP Issues and Options consultation, none are without potential obstacles to their viability and deliverability. Given the uncertainties about current and future need, and the deliverability of the options considered, allocating sites is not in this case a viable or 'reasonable' option.

The recommended preferred option is therefore not to allocate any specific sites for aggregates recycling in the SAD. The enabling policy in the Core Strategy (WM4) is considered sufficient to enable Walsall to provide any additional CD&EW recycling infrastructure likely to be required over the plan period.

6 Primary Land Won Sand & Gravel

6.1 Introduction

This section provides an overview of the primary land won sand and gravel resources in the Walsall area as part of providing a complete overview of the main mineral resources in the Council area as part of the evidence base for the SAD and AAP. It also seeks to review those potential areas of search and site allocations which are being considered for inclusion in the SAD and AAP Preferred Options document.

6.2 Methodology and Approach

In accordance with national planning policy guidance as set out in the NPPF (paragraph 143 – see Section 2.4 above), local plans for minerals are required to safeguard minerals of local and national importance which includes aggregates such as the dolerite and sand and gravel found in the Walsall area, as well as important infrastructure for the manufacture and distribution of aggregate mineral products.

National policy guidance also requires minerals planning authorities to “*plan for a steady and adequate supply of aggregates*” based on their Local Aggregates Assessment (LAA), which should identify future requirements (based on rolling average 10-year sales), and include an assessment of all potential supply options available, including from secondary and recycled sources (NPPF paragraph 145 – see Section 2.4 above). Pending the completion of an LAA covering Walsall, which is expected to consider future requirements, this report provides an overview of the potential supply options available in Walsall. This section considers options for supply of primary land-won aggregates; secondary and recycled sources having been examined in the preceding Section 5.

It is well documented that as a result of the underlying geology the mineral resources available in the Walsall area are wide ranging. As part of the SAD & AAP Minerals Project, Amec Foster Wheeler has sought to review the Core Strategy evidence for each of the main mineral resources in the Walsall area by providing:

- ▶ A brief overview of the underlying geology and the extent of the potential mineral resource (see **Figure 3.1**);
- ▶ What historic workings of the mineral resources has taken place, where that information is available in the public domain or been provided by the Council; and
- ▶ List existing and potential mineral extraction sites.

Due consideration has been given to information available in the public domain and information provided by the Council (e.g. planning application history). Where appropriate, consultation with neighbouring mineral planning authorities has been undertaken.

6.3 Background / Context

Sand and Gravel Resources – Review of Core Strategy Baseline Evidence

As well as seeking to safeguard potentially important aggregate mineral resources and infrastructure, local plans for minerals need to identify areas where extraction may be acceptable in principle subject to appropriate environmental safeguards. The BCCS has addressed the key requirements of the NPPF for minerals by identifying important mineral resources and mineral infrastructure sites in Walsall which need to be safeguarded through Policy MIN1. As well as identifying a broad Mineral Safeguarding Area (MSA) on the Minerals Key Diagram and an indicative MSA for sand and gravel in Appendix 7 (Map MC1), the Core Strategy Policy MIN2 identifies two Areas of Search for sand and gravel both within the Walsall area (MA1 Birch Lane and MA2 Branton Hill).

Sand and gravel resources in Walsall are shown on Figure 3.1. The evidence base for the Core Strategy included a preliminary review of the mineral resources of local and national importance available in the Black

Country, including aggregate minerals²¹. This established that there is no realistic scope for extraction of crushed rock in Walsall, as the only resource area, a small outcrop of dolerite²² at Pouk Hill (an area of open space between Reedswood and the M6 motorway), has been worked in the past and is now surrounded by development.

Walsall's superficial sand and gravel resources (mainly comprising glacial till associated with river and stream valleys) also underlie built-up areas. Evidence from a study carried out in Staffordshire and from a statement submitted to the Birmingham Development Plan Examination suggests that the glaciofluvial sand and gravel resources in Walsall are unlikely to be economically viable to work²³, except possibly in some cases where prior extraction is feasible. Prior extraction is addressed in Section 10 of this report.

The only areas where sand and gravel extraction is likely to be viable on any scale are the Sherwood Sandstone bedrock resources underlying the eastern fringes of the Borough, which have been the main focus for extraction in the recent past and yield mainly building sand and conglomerate. This resource area extends into the adjoining parts of Lichfield District in Staffordshire where there are active quarries, including Shire Oak Quarry off the A452 Chester Road adjacent to the boundary with Walsall, and Cranebrook Quarry off the A5 at Muckley Corner, also near the Borough boundary²⁴.

Sand and Gravel Extraction – Development of Options

The extent of sand and gravel resources in Walsall is identified on Map 9.1 of the SAD Issues and Options Report (April 2013), which reproduces the current BGS digital mineral resource mapping for Walsall, without the 250 metre “buffer zones” around the resource area, which are shown on Core Strategy Map MC1²⁵. The options for safeguarding these areas, including the potential for further refinement of the extent of the sand and gravel bedrock resource, are considered in Section 3 of this report (see Section 3.4, Minerals Option 1).

The Issues and Options Report and Appendices also provide updated information on mineral infrastructure sites in Walsall, identifying some that were omitted from the Core Strategy, which it is proposed to safeguard in the SAD²⁶. The sites identified for safeguarding include permitted sites for secondary and recycled aggregates production (see Section 5 above). The approach is in accordance with current guidance.

With regard to areas suitable for future sand and gravel extraction, the Issues and Options Report only identified the two Areas of Search identified in the BCCS. Core Strategy area MA1: Birch Lane is identified as Area of Search MXA1 in the SAD Issues and Options Report, and Core Strategy area MA2: Branton Hill is identified as Area of Search MXA2. No sites were put forward for sand and gravel extraction in response to the first call for sites in 2011, and no representations were received from the aggregates industry during the Issues and Options consultation. However, concerns were expressed by Staffordshire County Council about deficiencies in sand and gravel supplies in Walsall, which were re-iterated in subsequent discussions under the Councils' duty to co-operate.

Following the Issues and Options consultation, the Council made efforts to engage with the aggregates industry, to establish whether there is any current interest in working the sand and gravel resources in

²¹ See: Chapter 4 (in particular, 4.3.9, 4.3.12 – 4.3.13 and 4.4) and Figures 2 and 3, “Black Country Joint Core Strategy Minerals Study 2008” by RPS; see also Section 3.2 of “Black Country Core Strategy Minerals Background Paper 2” (2010), Black Country Authorities.

²² A type of black basalt, known locally as “Rowley Rag,” which occurs as intrusion within the Coal Measures; this was quarried for use as a construction material (principally for kerbstones and setts) as well as for roadstone.

²³ See Section 3.5, “Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council” (2006), British Geological Survey; see also Matter C Hearing Statement – Mr Paul Gilmour (186064) (2014).

²⁴ See Section 3.5 and Figures 3 and 4, “Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council” (2006), British Geological Survey.

²⁵ Maps MC1 – MC3 in Appendix 7 of the Core Strategy are based on Figure 4 of the “Black Country Joint Core Strategy Minerals Study 2008” by RPS.

²⁶ See: Chapter 9, Table 9.1a and Map 9.2 of Walsall Site Allocation Document Issues and Options – Issues and Options Report (April 2013), Walsall Council, and Table 1 of Appendix 9A.

Walsall, contacting the MPA, the BAA, and operators active in the East and West Midlands, but very few responses were received and no new sites were put forward, indicating that at the present time, there appears to be no interest in working these resources. However, the promoter of a site within the Birch Lane Area of Search (Land at Birch Lane, "Choices" Site CH12, Call for Sites Reference CFS49), which was put forward for housing during the first call for sites in 2011, wrote to the Council in December 2013, requesting that it be considered as part of the sand and gravel extraction proposal instead of for housing. This site is now identified as option MXP5: Land at Birch Lane.

A large number of objections were also received, particularly from local residents (but also from Lichfield District Council and a residents' campaign group in Stonnall in Lichfield), with regard to the Birch Lane proposals (including the housing site), mainly on the grounds of impact on amenity from noise, dust, visual/landscape impacts, impacts on the Green Belt, increased traffic generation, impacts on road safety and inadequacy of the highway network, and potential cross-boundary impacts. The objections included requests for the Council to look at alternative areas less close to housing, and to modify the boundary of the Area of Search.

Based on BGS mineral resource mapping, previous mineral extraction proposals, 'call for sites' submissions (predominantly for housing development), and in response to the objections received, the Council is proposing modifications to the boundary of the Birch Lane Area of Search, to move it further away from the housing areas (the assessment below is based on the revised area), and has also identified a further four potential areas of search for sand and gravel for consideration as possible alternatives. These options have been evaluated, and the results are summarised below.

6.4 Review Findings

Each of the potential sand and gravel Areas of Search (AOS) and potential site allocations has been assessed in terms of their viability and deliverability. The results of that assessment are summarised below, whilst completed assessment pro formas and supporting figures are attached in **Appendix A**. For the purpose of the assessment of the potential AOS and site allocations, the Council has grouped these into seven Area Options as identified in Table 4.2. Those Site and Area Options relevant to primary land-won sand and gravel are:

- ▶ A: Birch Lane Area Options (**Figure A1**);
- ▶ B: Branton Hill & Daniel's Lane Area Options (**Figure A2**);
- ▶ C: West of Chester Road Area Options (**Figure A3**); and
- ▶ D: Sandhills Area Option (**Figure A4**).

MXA1: Birch Lane Potential Area of Search

Located on the north-eastern edge of the Aldridge urban area, the boundaries of the 51.5 ha AOS are formed by Birch Lane, Lazy Hill Road, and Chester Road (A452) (**see Figure A1**). The AOS comprises mainly open arable land consisting of fields bounded by hedgerows with small pockets of woodland. It includes the Birch House Business Park, a small commercial development, as well as the former Aldridge Quarry, accessed off Birch Lane (Permitted Site MP1). Located in the Green Belt, the AOS reflects that which was identified in the BCCS 2011 (Policy MIN2).

The potential winnable mineral resource in the Birch Lane AOS is estimated to total some 5.2 million tonnes (mt). This information has been based on the information used to inform the forthcoming West Midlands Metropolitan Area Local Aggregate Assessment (LAA), which in turn has been extrapolated from information provided by the operator in 2007. The figure would need to be further verified and refined through appropriate borehole information to ascertain actual winnable resource. It is anticipated that such information would only become available either through pre-application discussion and/or at a planning application stage, or at the discretion of a potential mineral operator with an interest in extracting the potential sand and gravel resource.

As a result of the Issues and Options consultation, the boundary of the proposed AOS has been amended in response to comments received from local residents to omit those parts of the area nearest to existing

residential properties (including Site MXP5) so as to provide a 'buffer' between potential extraction areas and these properties. This has been considered necessary to address concerns about proximity to existing properties, impacts on amenity, and possible impacts on ground stability.

The main physical constraints within the proposed AOS (including the potential site option MXP1: Land near Aldridge Quarry) are as follows:

- ▶ Proximity to existing housing – proposed AOS boundary is within 50 m of properties on the opposite side of Stonnall Road (i.e. Birch Farm and two adjacent dwellings). There is also housing fronting onto Lazy Hill within 200 m of the western boundary of the revised AOS and a large housing estate at Druid's Heath to the south-west of the boundary. The nearest properties in Cotswold Close, Kinver Crescent, Clifton Avenue, and Ledbury Close are 250-300 m away; the occupiers of these houses were the main source of objections to this AOS. Given these objections, effective measures would be required to safeguard amenity of these properties from noise, dust, traffic and visual impacts;
- ▶ Proximity to commercial properties – within the proposed AOS there is a small industrial estate (Birch House Business Park) off Birch Lane and there is a plant hire business (Cromwell Commercials) off the A452 Chester Road;
- ▶ Impacts on agricultural land and holdings – agricultural land within the proposed AOS is not classified. Impacts on land and holdings would therefore require evaluation;
- ▶ Access constraints and impacts on highway capacity – respondents have questioned the adequacy of the current access off Birch Lane and the local highway authority has confirmed that there may be a requirement for widening of Birch Lane and improvements to the junction of Birch Lane with the A452 Chester Road to support further mineral extraction in this location. Potential costs of access improvements may impact on viability;
- ▶ Impacts on water resources – the proposed AOS is within a Groundwater Source Protection Zone (SPZ) Outer Zone, as such effective pollution control measures would be required;
- ▶ Impacts on flood risk and hydrology – hydrological assessment and surface water management strategy is likely to be required, as a linear feature (probably a former stream channel) which extends into the proposed AOS is identified by the Environment Agency as being at potential risk of surface water flooding during extreme rainfall events, this includes a small area adjacent to Stonnall Road identified as being at high risk;
- ▶ Impacts on local landscape character – the proposed AOS is in an area of relatively unspoiled open landscape. The southern area retains some historic field patterns characterised by small fields enclosed by hedgerows, with more open arable agriculture to the north; and
- ▶ Potential impacts on archaeology – evaluation would be required to determine the potential of any sites considered for mineral extraction within the proposed AOS.

Most of the constraints identified are capable of being mitigated and are not considered to present a fundamental barrier to the delivery of sand and gravel extraction within the proposed AOS. However, provision of effective mitigation to address environmental and amenity effects, for example the implementation of advance planting, landscaping and acoustic barriers, would add to costs and could affect viability. The physical constraint most likely to affect delivery is the potential requirement for access and highway improvements, which is likely to add significantly to costs. However, given that the other options considered are similarly constrained (and in some cases are more constrained), on balance the identification of this AOS (MXA1) and the proposed AOS at Branton Hill (MXA2), in line with Core Strategy Policy MIN2, is considered the most appropriate option for the SAD, in terms of identifying where sand and gravel extraction may take place during the plan period.

MXP1: Land near Aldridge Quarry Potential Site Allocation

This site is located within the Birch Lane Potential AOS (MXA1). Located on the north-eastern edge of the Aldridge urban area and accessed from Birch Lane, the 12.14 ha site consists of predominantly open arable fields bounded by hedgerows (see **Figure A1**). The Birch House Business Park is located immediately to

the north east of the site. Located in the Green Belt, the proposed allocation for sand and gravel extraction was first promoted for inclusion in the BCCS in 2007.

The site was initially put forward for consideration by the operator Cemex in 2007. Since then they have indicated they are not intending to pursue the site at the present time; a position which has since been reiterated to Amec Foster Wheeler by the operator. The site has nevertheless been retained by the Council as a potential site allocation option for consideration.

The potential resource at the site is estimated to be some 2.6 mt, of which 1.8 mt is sand (sandstone) and the remaining 0.8 mt is sand and gravel (conglomerate). It has not been possible to ascertain an estimated annual production rate for this resource. It is anticipated the information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator.

In terms of the potential viability and deliverability of this site, the main constraints are as outlined above in relation to the proposed Birch Lane AOS (MXA1). As indicated above, most of the constraints identified are capable of mitigation and are not considered to present a fundamental barrier to sand and gravel extraction, although any mitigation required will add to costs and could affect viability. The main physical constraint which could affect delivery of this site is the potential requirement for access and highway improvements, which is likely to have significant cost implications. A more serious constraint to the allocation of the site – and one which may be influenced by the physical constraints identified – is the apparent lack of any current interest from the mineral operator who first promoted the site. Without either the existing operator and/or landowner support to promote and develop the site for mineral extraction, the likelihood of this site coming forward for minerals extraction is significantly affected.

In view of the uncertainty about whether the site can be delivered within the plan period, allocation of this site is not recommended. It is considered that the allocation of the Birch Lane AOS (MXA1) in the SAD, which includes this site, would provide sufficient detail on where sand and gravel extraction could take place in Walsall over the plan period, in line with Core Strategy Policy MIN2 and national policy guidance (i.e. NPPF paragraphs 143 and 145).

MXP5: Land at Birch Lane Potential Site Allocation

Located on the north-eastern edge of the Aldridge urban area and accessed off Birch Lane, the 5.54 ha site consists of open arable fields bounded by hedgerows (**see Figure A1**). The south-western corner of the proposed site backs onto the residential properties on Kinver Crescent and Clifton Avenue. Located in the Green Belt, the proposed allocation was initially promoted as a housing site in response to the SAD 'Call for Sites' (2011), despite being located within a mineral resource area.

There were a significant number of objections to the proposal for housing development from nearby residents, mainly on the grounds of loss of Green Belt and impact on visual amenity, but also on the grounds of impact from increased traffic, road safety, and the inadequacy of the highway network to cope. Further to the Council's comments about impact on mineral resources in its response to the 'Call for sites' submission, the site has more recently been put forward for consideration as a potential site for sand and gravel extraction by the site's promoter, although no evidence has been provided by the promoter in support of this.

It has not been possible to ascertain what the potential mineral resource may be at this site, in that no such information has yet been provided by the site promoter. It is anticipated that such information would only become available through either pre-application discussions and/or at a planning application stage, or at the discretion of a potential mineral operator / site promoter with an interest in extracting the potential sand and gravel resource.

The key constraint in terms of viability and deliverability is the site's close proximity to existing residential properties. The proposed site now lies outside the proposed Birch Lane AOS boundary (MXA1), which has been amended in response to comments received from local residents to address concerns about proximity to existing properties, impacts on amenity, and possible impacts on ground stability (see above). Should the site be developed for future sand and gravel extraction, appropriate mitigation measures would need to be put in place to minimise any potential adverse effects, not least an appropriate 'buffer zone'. The number and cost implications of such measures are likely to have a bearing on the viability and deliverability of any mineral extraction at this site.

Furthermore, it would also have to be demonstrated that the needs and benefits of any future minerals development at the site outweigh any effects on the core planning principle of ensuring a good standard of amenity for all existing and future occupants of land and buildings as set out in paragraph 17 of the NPPF.

While national policy guidance acknowledges that mineral extraction is a temporary activity and that some amenity effects should be expected (NPPF paragraph 143), a site of this size could be operating for up to 10 years, depending on the extent of the resource present and the annual rate of extraction. The need for sand and gravel would therefore have to be weighed against the potential impacts of extraction on the amenity of nearby residents over this period of time, and on the availability of alternative sites which are further away from housing and are therefore likely to have lower impacts on people.

Taking this into account, and also in view of the lack of certainty that the land owner is able to deliver a site within the timescale of the plan, it is considered that a mineral extraction proposal is unlikely to be viable or deliverable on this site. Therefore, this site could not be considered a 'preferred option' for allocation, if there are alternatives that are likely to have lower impacts.

MXA2: Branton Hill Potential Area of Search

Located to the south-west of the Aldridge urban area, the approximate 34 ha AOS is bounded by the freight railway line to the north, Daniel's Lane to the south, and the Chester Road (A452) to the east (**see Figure A2**). Furthermore, the AOS is located near Walsall's administrative boundary with Lichfield District in Staffordshire.

The AOS consists primarily of agricultural land and includes the former Branton Hill Quarry, landfill and inert CD&EW facility (Permitted Site MP4 and Mineral Infrastructure Site MI2), which has partly been restored to wetland habitat and/or open space. The quarry is not currently operational and has mostly been infilled but there are large derelict areas which have yet to be restored. The site is currently accessed from the A454 Little Aston Road via Branton Hill Lane through a residential area. Located in the Green Belt, the AOS reflects that which has been identified in the BCCS 2011 (Policy MIN2) as well as a Minerals Safeguarding Area in the former Walsall UDP.

The area is known to contain sand and gravel resources, not least due to the presence of the now closed Branton Hill Quarry and its proposed extension (MXP2), currently subject to a planning application (Ref. BC64995P). Based on the information from that planning application and discounting the area of the now closed quarry, estimated sand and gravel resources are in the region of 1.2 mt.

Constraints within the AOS include:

- ▶ Proximity to existing housing – the permitted area of Branton Hill Quarry (MP4) and existing quarry access are within 50 m of the nearest properties on Branton Hill Lane, and within 150 m of existing properties and proposed housing development at Bourne Farm, off the A452 Chester Road. The southern boundary of proposed AOS (including MXP2: Branton Hill Quarry Extension) is within 250 m of properties on Daniel's Lane including Kendon Lea Farm, less than 400 m away from properties built relatively recently in small developments off Erdington Road (Hayfield Close and Wheatfield Close), and only just over 400 m from other properties fronting onto Erdington Road. Effective measures would be required to safeguard amenity of these properties from noise, dust, traffic and visual impacts;
- ▶ Proximity to community facilities – the southern boundary of the proposed AOS (including MXP2: Branton Hill Quarry Extension) is just over 250 m from a secondary school (St. Francis of Assisi Catholic Technology College) on Erdington Road, and is adjacent to the boundary of the school playing field. Mitigation would be required to address any potential impacts on the school buildings and grounds;
- ▶ Proximity to commercial properties – the southern boundary of the proposed AOS (including MXP2: Branton Hill Quarry Extension) is within 150 m of a garden centre (Wheat's) also fronting onto the A452 Chester Road and the north-eastern boundary, which includes the permitted area of Branton Hill Quarry (MP4), is within 250 m of a restaurant (Simon's), although the latter is included within the red line boundary of the proposed Bourne Farm housing development;

- ▶ Impacts on agricultural land and holdings – agricultural land within the southern areas of the proposed AOS (including MXP2: Branton Hill Quarry Extension) is not classified; impacts on land and holdings would therefore require evaluation;
- ▶ Access constraints and impacts on highway capacity – the existing access to Branton Hill Quarry via Branton Hill Lane is deemed inadequate by the local highway authority, and is no longer appropriate given its remoteness from the current extraction area and the proposed Branton Hill Quarry extension area (MXP2). Delivery of an extraction scheme within the latter area of the AOS is likely to be subject to the implementation of the new haul road, for which planning permission was granted in 2013 (11/0943/FL). However, the economic viability of this is questioned, given that it is partly dependent on enabling development (see below for details);
- ▶ Impacts on Public Rights of Way (PROWs) – the proposed new haul road crosses a PROW and there are conditions requiring installation of kissing gates and warning signs at the intersection;
- ▶ Impacts on water resources – the proposed AOS is within a Groundwater Source Protection Zone (SPZ) Outer Zone around a borehole, from which water is being abstracted at the Bourne Vale Pumping Station (South Staffordshire Water) within 300 m of the southern boundary of the AOS. Extraction in this area would depend on implementing an effective pollution control regime that meets the requirements of the Environment Agency and the water company;
- ▶ Impacts on flood risk and hydrology – the proposed AOS includes wetland habitats (restored areas of original Branton Hill Quarry) and a small watercourse crosses the area, which drains into Bourne Pool to the south-west. Parts of the area are identified by the Environment Agency as being at high risk of surface water flooding during extreme rainfall events. As such, an effective surface water management regime would be needed to address flood risks and risks from pollution of water bodies from surface water run-off;
- ▶ Impacts on biodiversity and geological conservation – the proposed AOS includes the permitted area of Branton Hill Quarry (MP4), within which is a SINC (Branton Hill Quarry) covering the original phases of the quarry, now restored as a wetland, scrubland and woodland habitat, and a separate area of relict hedgerow along Branton Hill Lane. The area is also of potential geological interest. There is potential to expand these habitats through final restoration and landscaping of the un-restored areas of Branton Hill Quarry, and for the geological recording of Triassic Sandstones present within the AOS, in advance of the proposed new haul road (this is subject to condition), and the opening up of any new extraction areas;
- ▶ Impacts on local landscape character – the southern part of the proposed AOS (including MXP2: Branton Hill Quarry Extension) retains some of historic field pattern characterised by small fields enclosed by hedgerows. However, extraction in this area may be needed to complete restoration of the latter phases of Branton Hill Quarry (MP4) which were left in a derelict and only partly-restored condition when the quarry closed;
- ▶ Potential impacts on archaeology – this area is of potential archaeological interest. There is evidence from the Wolverhampton and Walsall HER that the area around Bourne Pool was a focus for prehistoric settlement and activity. The proposed new haul road also affects earthworks of possible Iron Age origin (Loaches Banks) and there are conditions requiring archaeological evaluation in advance of the haul road being constructed. Further archaeological evaluation would also be required in advance of opening up any new extraction areas within the proposed AOS; and
- ▶ Overhead power line – there is an overhead power line running north-east to south-west across the AOS, including a pylon to the south of Branton Hill Lane on the northern edge of the proposed Branton Hill Quarry extension area (MXP2). A buffer around the pylon is likely to be required, but otherwise this is not likely to be a major constraint to mineral working.

It is considered that most of the constraints outlined above can be overcome through mitigation, although the range and complexity of constraints and the measures needed to address them will add to development costs and could affect economic viability. The most significant constraint identified is the site access, which is deemed inadequate and inappropriate given its remoteness from the extraction area and the proposed extension area (MXP2). Approval of the latter is likely to be subject to the implementation of the new haul

road approved under the same permission as for the relocation of the aggregate recycling facility (11/0943/FL). Nevertheless, the viability and deliverability of this haul road is questioned, given that it is apparently partly dependent on the 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry. The housing development is subject to separate permissions (06/0169/OL/E4 and 11/1033/TE). However, the housing development and relocated aggregate recycling facility are tied to the haul road scheme by a S106 agreement, which requires the latter to be built and brought into use before the other developments can be implemented.

The operator of Branton Hill Quarry went into receivership in May 2013 and the quarry has since closed. The owner is currently seeking to sell the site and the surrounding land in his ownership, including the proposed extension (MXP2). Unless a buyer and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of any mineral extraction and/or aggregate recycling activity in this AOS.

Viability and deliverability of future mineral extraction in the AOS is dependent upon a number of factors, not least whether or not there is an interest by the minerals industry to develop the existing quarry and its approved extension, as well as the enabling development of Bourne Farm for housing, to facilitate the development of the new haul road and access onto the A452.

In summary, the viability and deliverability of mineral extraction in the AOS is open to question, given the constraints outlined above. However, the existing quarry and proposed extension area are understood to be on the market, as such there is a possibility that another operator will take over the site and take forward the quarry extension proposal. As the other options considered are similarly constrained (and in some cases are more constrained), on balance the identification of this AOS (MXA2) and the proposed AOS at Birch Lane (MXA1) in line with Core Strategy Policy MIN2, is considered the most appropriate option for the SAD, in terms of identifying where sand and gravel extraction may take place during the plan period.

MXP2: Branton Hill Quarry Extension Potential Site Allocation

Located to the south-west of the Aldridge urban area, the proposed site allocation is within the Branton Hill AOS (MXA2) and is located immediately to the south of the existing Branton Hill Quarry (MP4) (see **Figure A2**). The proposed 12.32 ha area consists of predominantly arable land bounded by hedgerows and is currently subject to a planning application, which has yet to be determined (BC64995P). The application has been held in abeyance for more than 15 years pending the resolution of issues concerning impacts of hydrology and access to the extension area. Located in the Green Belt, the site falls within the BGS identified sand and gravel resource area, as well as the area of search identified in the BCCS 2011 (Policy MIN2).

Estimated minerals resources are in the order of 1.2 mt of sand and gravel which could be worked at an annual production rate of 50,000 tonnes per annum as set out in the supporting statement of the planning application. If implemented, this proposal would on its own meet the indicative requirement for sand and gravel production in Walsall identified in Core Strategy Policy MIN2.

Constraints include proximity to sensitive receptors including housing, garden centre, other commercial uses, recreational use and agriculture as well as potential risk of surface water flooding and the site's location within a groundwater SPZ, overhead power lines, and potential impacts on archaeology (see MXA2 above). A further key constraint is the quarry access road, in that the existing access is deemed inadequate and inappropriate given its remoteness from the former extraction area and the proposed extension. There is an unimplemented planning permission for a new quarry haul road on a different alignment, which also includes a proposal to relocate the aggregate recycling facility within Branton Hill Quarry (11/0943/FL - see MXA2 above and Branton Hill CLEUD Relocation Site (AR2)).

The viability and deliverability of this haul road is questioned, given that it is apparently partly dependent on the 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry. The housing scheme is subject to separate permissions (06/0169/OL/E4 and 11/1033/TE). As noted above (MXA2), all of these permissions are linked together by a S106 agreement which requires the new quarry haul road to be constructed and brought into use before the recycling area can be relocated and the housing development implemented.

The operator of Branton Hill Quarry went into receivership in May 2013 and the quarry has since closed. The owner is currently seeking to sell the site and the surrounding land in his ownership, including the proposed extension. Unless a buyer and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of any mineral extraction at this site. Furthermore, it is likely that any proposal for future extraction is to be conditional on a submission of a final restoration programme for the existing quarry. There are concerns that unless this is addressed, it will set a precedent and any new areas for extraction may also remain unrestored, with consequential impacts on landscape and visual appearance of the site, as well as implications for future land use.

As such, the viability and deliverability of future mineral extraction at this site would appear to be dependent upon a number of factors, not least whether or not there is an interest by the minerals industry to develop the existing quarry and its approved extension, as well as the enabling development of Bourne Farm for housing, to facilitate the development of the new haul road and access onto the A452.

In view of the uncertainty about whether the site can be delivered within the plan period, allocation of this site is not recommended, in that it is considered that the designation of the Branton Hill AOS (MXA2) in the SAD, which includes this site, would provide sufficient detail on where sand and gravel extraction could take place in Walsall over the plan period, in line with Core Strategy Policy MIN2 and national policy guidance as set out in paragraphs 143 and 154 of the NPPF.

MXA8: Daniel's Lane Aldridge Potential Area of Search

This potential AOS is located to the east of Erdington Road and to the south of Daniel's Lane on the eastern edge of the Aldridge urban area (see **Figure A2**). Located within the Green Belt, it is an area of open land comprising mainly a mixture of arable and pasture agricultural land, some horse grazing land as well as some recreational uses, including sports pitches belonging to the Old Veseyans' Rugby Club. The area has been identified by the Council as a potential AOS as a consequence of a site off Daniel's Lane having been put forward for housing by the land owner in response to the first call for sites in 2011 (CFS47) despite being located in the Green Belt and within a BGS sand and gravel resource area.

Constraints within the AOS include:

- ▶ Proximity to existing housing – Shrubbery Farm, Shrubbery Farm Cottages and properties at Bourne Vale lie just to the east of the potential AOS. There are also groups of relatively recently developed residential properties in Wheatland Grove and Mayfield Grove, at the corner of Daniel's Lane and Erdington Road, as well as isolated properties fronting onto both of the main roads;
- ▶ Proximity to commercial properties – there is a small garden centre (Valley Nurseries) approximately 250 m to the west of the potential AOS on the opposite side of Erdington Road;
- ▶ Proximity to community facilities – there are a number of outdoor recreational facilities around the potential AOS, including the adjacent Bourne Vale Riding Stables and Old Veseyans' Rugby Club off Little Hardwick Road. In addition, Streetly Crematorium is around 250 m to the south, on the opposite side of Little Hardwick Road;
- ▶ Impacts on agricultural land and holdings – the potential AOS is mainly in agricultural use, both for arable and pasture. There is also a poultry farm (Peronne Poultry Farm) off Little Hardwick Road. None of the agricultural land has been classified, therefore impacts on agricultural land and holdings would require evaluation;
- ▶ Access constraints and impacts on highway capacity – there is no current access that could serve sand and gravel extraction sites within the potential AOS. The local highway authority has identified a need for a new access to be provided off Erdington Road. Potential costs of providing a new access could impact on viability;
- ▶ Profitability compared to alternatives – for example, a site off Daniel's Lane (CFS47) is being promoted for housing development through the 'Call for sites';

- ▶ Impacts on utilities infrastructure – there is a small pumping station off Erdington Road. Mineral extraction schemes would have to be designed so as not to impact on the operation of this facility;
- ▶ Impacts on water resources – the proposed AOS is within a Groundwater SPZ Total Catchment area, as such effective pollution control measures would be required;
- ▶ Impacts on flood risk and hydrology – hydrological assessment and surface water management strategy is likely to be required, as two linear features that extend between Shrubbery Farm and Erdington Road within the proposed AOS (probably former stream channels) are identified by the Environment Agency as being at potential risk of surface water flooding during extreme rainfall events, some sections are identified as being at high risk, therefore a surface water management regime would be needed to address flood risks and risks from pollution of water bodies from surface water run-off;
- ▶ Impacts on biodiversity and geological conservation – there are two SLINCs in the vicinity of the potential AOS: Daniel's Lane Hedges, to the north, and Corporation Wood and Tower's Covert to the east. An ecological assessment would be required to identify habitats of value within the AOS and linkages between these and the designated sites, and the most appropriate strategy for working the minerals resources, in order to retain as much habitat as possible and maintain important linkages;
- ▶ Impacts on local landscape character – the potential AOS is mainly in agricultural/ horse grazing uses and retains significant elements of the historic field pattern characterised by small fields enclosed by hedgerows. The overhead power line running across the area being the other main landscape feature. It is unlikely that all of the boundaries and hedgerows could be retained if sand and gravel extraction is allowed within the AOS;
- ▶ Potential impacts on archaeology – Walsall & Wolverhampton HER records several buildings of local interest and other features within the potential AOS and in the surrounding area, including cropmarks and earthworks which may be of prehistoric origin. Archaeological evaluation would therefore be required in advance of opening up any new extraction areas within the proposed AOS;
- ▶ Overhead power line – there is an overhead power line running diagonally north-east to south-west across the potential AOS, supported by three pylons. It is likely that buffers would be required around the pylons which would limit the extent of extraction, but otherwise is not likely to be a fundamental barrier to mineral working.

The main constraints to mineral working in this area are likely to be proximity to sensitive receptors including housing (in particular high value properties), recreational uses and agriculture, which would need to be appropriately mitigated to minimise any potential impacts on amenity and business. There is also a need to provide a new access off Erdington Road to serve the area, which is likely to significantly add to costs. However, it is considered that most of the other constraints, including: overhead power lines; location within a groundwater SPZ; proximity to biodiversity and geological conservation sites (e.g. Daniel's Lane Hedges SLINC); and potential archaeological remains, could be overcome through mitigation, although again, this would add to development costs and may impact on viability.

Potentially viable sand and gravel resources in the potential AOS have been identified based on the BGS mineral resource mapping, although it is not possible to provide an indicative estimate of the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.

The viability and deliverability of future mineral extraction in the AOS is dependent upon a number of factors, not least whether or not there is an interest by the minerals industry to extract sand and gravel resources from the area. This is however, open to question given the constraints and current lack of interest in mineral extraction as outlined above. To date there has been no formal expressed interest in sand and gravel extraction in this AOS by the minerals industry. This combined with the area falling outside any AOS for sand and gravel as identified in the BCCS as well as the presence of existing (albeit currently non-operational) extraction sites nearby benefitting from access to appropriate infrastructure, could mean that

proposals for sand and gravel extraction are unlikely to come forward in the short to medium term. Furthermore, the Council is unlikely to support further proposals for mineral extraction in the wider Aldridge area until there has been progress on the restoration of the existing Aldridge and Branton Hill quarries, not least because the cumulative impact of further large-scale mineral working is likely to be very significant.

On balance, the identification of this AOS in the SAD is unlikely to be justified, given the above considerations and that the AOS proposed at Birch Lane (MXA1) and Branton Hill (MXA2) in the Core Strategy are likely to have more potential for sand and gravel working in the short-term, even though they are themselves also subject to major constraints. However, the potential for working in this location could be revisited again when the Core Strategy is reviewed. In the meantime, Core Strategy Policy MIN2 provides sufficient flexibility to allow for mineral working in this AOS should a suitable proposal come forward here, in advance of proposals in the other AOS identified in the Core Strategy.

MXA5: Druid's Heath Potential Area of Search

The potential AOS is located in the area between Birch Lane, the A452 Chester Road, Back Lane, the former Holly Lane Quarry, and Druid's Heath Farm / Golf Course to the east of the Aldridge urban area and near Walsall's administrative boundary with Lichfield District in Staffordshire (see **Figure A3**). The area consists mainly of open land in agricultural use with some scattered settlements, land used for horse grazing, ribbon development (housing and commercial uses) along the frontage of Chester Road, the Druid's Heath golf course, and a motocross track off Chester Road to the south, on the site of the former Holly Lane Quarry.

The AOS is located within the Green Belt and has been identified by the Council as a potential alternative to the MXA1 Birch Lane AOS following the receipt of a large number of objections to that area by nearby residents in response to the SAD and AAP Issues and Options consultation. The area is part of a BGS identified sand and gravel resource area as well as showing up on their mapping of historic extraction sites. It is understood that the Council has received informal enquiries about sand and gravel extraction in this area in the past, but the Council's planning register does not record any formal planning applications.

Constraints within the AOS include:

- ▶ Proximity to existing housing – the potential AOS is near to a number of isolated residential properties fronting onto Stonnall Lane, in particular Druid's Heath Farm, Birch Farm, five houses and a residential care home (Richmond Hall), as well as being adjacent to the curtilages of residential properties fronting onto Chester Road (A452), including 8 newly-built, high value houses at Mill Green Chase;
- ▶ Proximity to commercial properties – there are potentially sensitive businesses fronting onto the A452 Chester Road near to the potential AOS, notably the Wyevale Garden Centre (which has a cafe) around 200 m away and the Plough and Harrow pub and restaurant about 500 m away;
- ▶ Proximity to community facilities – the potential AOS is adjacent to Druid's Heath Golf Course, which lies to the west, and to the "Total MX" motocross track to the north. There are also stables, fields and paddocks used for horse grazing within the area;
- ▶ Impacts on agricultural land and holdings – the potential AOS is mainly in agricultural use, mostly arable. None of the agricultural land has been classified, therefore impacts on agricultural land and holdings would require evaluation;
- ▶ Access constraints and impacts on highway capacity – the existing access to the potential AOS via existing lanes off the A452 Chester Road is considered inadequate. The local highway authority has identified a potential need for access improvements and has identified two options: widening/ improvements of Birch Lane and Back Lane and improvement of junction with A452, and/or a new access with A452 Chester Road. Both options would add significantly to costs;
- ▶ Impacts on Public Right of Way (PROW) – there are two Definitive PROWs crossing the potential AOS linking Hobs Hole Lane to Holly Lane; although given their location in relation to the potential working areas, the PROWs need not be significantly affected if affected at all;

- ▶ Impacts on water resources – the proposed AOS is within a Groundwater SPZ Total Catchment area, as such effective pollution control measures would be required;
- ▶ Impacts on flood risk and hydrology – hydrological assessment and surface water management strategy is likely to be required, as a linear feature that runs along the western edge of the proposed AOS (probably a former stream channel) is identified by the Environment Agency as being at potential risk of surface water flooding during extreme rainfall events, with a small area identified as being at potential high risk;
- ▶ Impacts on biodiversity and geological conservation – mature hedgerows along lanes within and around the potential AOS have been designated as SLINCs: Hobs Hole Lane Hedges SLINC and Back Lane Hedges SLINC. An ecological assessment would be required to identify habitats of value within the AOS and linkages between these and the designated sites, as well as the most appropriate strategy for mineral working, in order to retain as much habitat as possible and maintain important linkages;
- ▶ Impacts on local landscape character – the potential AOS is mainly in agricultural/ horse grazing uses and retains significant elements of the historic field pattern characterised by small fields enclosed by hedgerows. The small lanes and overhead power line running across the area being the other main landscape features. It is unlikely that all of the boundaries and hedgerows could be retained if sand and gravel extraction was to be allowed within the AOS;
- ▶ Potential impacts on archaeology – Walsall & Wolverhampton HER records several buildings and other features of local interest in this area, including the lanes and a possible cropmarks within the AOS. Survival of as yet unidentified below-ground remains within the AOS is likely to be good, particularly where there has been no recent arable cultivation. Archaeological evaluation would therefore be required in advance of opening up any new extraction areas within the proposed AOS;
- ▶ Overhead power line – there is an overhead power line running diagonally north-east to south-west across the potential AOS, supported by two pylons. It is likely that buffers would be required around the pylons, which would limit the extent of extraction but otherwise is not likely to be a fundamental barrier to mineral working.

Potentially viable sand and gravel resources in the potential AOS have been identified based on the BGS mineral resource mapping, although it is not possible to provide an indicative estimate of the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.

The extraction of potential mineral resources in the AOS is likely to require potential upgrading to the existing lanes or a new access off the A452 Chester Road to serve any potential extraction sites. Potential adverse effects on PROWs would also need to be considered and appropriately mitigated. Due consideration would also need to be had to any adverse effects on communities and highways infrastructure in neighbouring Lichfield District. Other significant constraints identified above include: proximity to housing and in particular high value housing (e.g. the Mill Green Chase new housing development under construction on the footprint of previous farm buildings at Mill Green Farm); potential for archaeology; and impacts on landscape, in particular the significant survival of historic field boundaries and hedgerows, especially in the Hob's Hole Lane area.

To date there has been no formal expressed interest in sand and gravel extraction in this AOS by the minerals industry. This combined with the area falling outside any AOS for sand and gravel identified in the BCCS as well as the presence of existing (albeit currently non-operational) extraction sites nearby benefitting from access to appropriate infrastructure, could mean that proposals for sand and gravel extraction are unlikely to come forward in the short to medium term. Furthermore, the Council is unlikely to support further proposals for mineral extraction in the wider Aldridge area until there has been progress on the restoration of the existing Aldridge and Branton Hill quarries, not least because the cumulative impact of further large-scale mineral working is likely to be very significant.

On balance, the identification of this AOS in the SAD is unlikely to be justified, given the above considerations and that the AOS proposed at Birch Lane (MXA1) and Branton Hill (MXA2) in the Core

Strategy are likely to have more potential for sand and gravel working in the short-term, even though they are themselves also subject to major constraints. However, the potential for working in this location could be revisited again when the Core Strategy is reviewed. In the meantime, Core Strategy Policy MIN2 provides sufficient flexibility to allow for mineral working in this AOS should a suitable proposal come forward here, in advance of proposals in the other AOS identified in the Core Strategy.

MXA6: Hob's Hole Lane Potential Area of Search

The potential AOS is located on land to the west of the A452 Chester Road around the junction of Hob's Hole Lane, Back Lane and Gould Firm Lane to the east of the Aldridge urban area and near Walsall's administrative boundary with Lichfield District in Staffordshire (see **Figure A3**). The area consists mainly of open land in agricultural use which is crossed by small lanes with scattered settlements, some development on the frontage of Chester Road, the Druid's Heath golf course to the north-west, and a motocross track off Chester Road to the north, on the site of the former Holly Lane Quarry.

The AOS is located within the Green Belt and has been identified by the Council as a potential alternative to the MXA1 Birch Lane AOS following the receipt of a large number of objections to that area by nearby residents in response to the SAD and AAP Issues and Options consultation. The area is part of a BGS identified sand and gravel resource area as well as showing up on their mapping of historic extraction sites. In addition, a number of potential housing sites were proposed in the area in response to the first 'Call for Sites' (2011).

Constraints within the AOS are very similar to those within MXA5: Druid's Heath and include:

- ▶ Proximity to existing housing – the potential AOS is near to four properties on Gould Firm Lane and to curtilages of residential properties fronting onto Chester Road (A452), including 8 newly-built, high value houses at Mill Green Chase;
- ▶ Proximity to commercial properties – there are potentially sensitive businesses near to the potential AOS, notably the Plough and Harrow pub and restaurant fronting onto the A452 Chester Road, the Old Irish Harp pub at the corner of the Chester Road (A452) and Little Aston Road (A454), and the Fairlawns Hotel and Spa off Little Aston Road (A454);
- ▶ Proximity to community facilities – the potential AOS is adjacent to Druid's Heath Golf Course, which lies to the west, and to the "Total MX" motocross track to the south. There are also stables and fields used for horse grazing within the area;
- ▶ Impacts on agricultural land and holdings – the potential AOS is mainly in agricultural use, mostly arable. None of the agricultural land has been classified, therefore impacts on agricultural land and holdings would require evaluation;
- ▶ Access constraints and impacts on highway capacity – the existing access to the potential AOS via existing lanes off the A452 Chester Road is considered inadequate. The local highway authority has identified a potential need for access improvements and has identified two options: widening/ improvements of Birch Lane and Back Lane and improvement of junction with A452, and/or a new access with A452 Chester Road. Both options would add significantly to costs;
- ▶ Impacts on Public Right of Way (PROW) – there is a Definitive PROW crossing the potential AOS linking Hobs Hole Lane to Holly Lane; although given its location in relation to the potential working areas, the PROW need not be significantly affected if affected at all;
- ▶ Profitability compared to alternatives – for example, a site at the rear of the Old Irish Harp pub (CFS31) is being promoted for housing development through the 'Call for sites';
- ▶ Impacts on water resources – the proposed AOS is within a Groundwater SPZ Total Catchment area, so effective pollution control measures would be required;
- ▶ Impacts on flood risk and hydrology – hydrological assessment and surface water management strategy is likely to be required, as there are two linear features within the proposed AOS (probably former stream channels) which are identified by the Environment Agency as being at

potential risk of surface water flooding during extreme rainfall events, including areas identified as being at medium to high risk;

- ▶ Impacts on biodiversity and geological conservation – mature hedgerows along lanes within and around the potential AOS have been designated as SLINCs: Stonnall Road Hedge SLINC, Back Lane Hedges SLINC, and Holly Lane Hedges SLINC. An ecological assessment would be required to identify habitats of value within the AOS and linkages between these and the designated sites, as well as the most appropriate strategy for mineral working in order to retain as much habitat as possible and maintain important linkages;
- ▶ Impacts on local landscape character – the potential AOS is mainly in agricultural/ horse grazing uses and retains significant elements of the historic field pattern characterised by small fields enclosed by hedgerows. The small lanes and overhead power line running across the area being the other main landscape features. It is unlikely that all of the boundaries and hedgerows could be retained if sand and gravel extraction was to be allowed within the AOS;
- ▶ Potential impacts on archaeology – Walsall & Wolverhampton HER does not record any features of local interest in this area other than the lanes. Survival of as yet unidentified below-ground remains within the AOS is also likely to have been affected by recent arable cultivation. However, archaeological evaluation would be required to determine the potential for survival of remains, in advance of opening up any new extraction areas within the proposed AOS;
- ▶ Overhead power lines – there is an overhead power line running diagonally north-east to south-west across the potential AOS, supported by two pylons, and there is another overhead power line running to the south-east. It is likely that buffers would be required around the pylons, which would limit the extent of extraction but otherwise is not likely to be a fundamental barrier to mineral working.

Potentially viable sand and gravel resources in the potential AOS have been identified based on the BGS mineral resource mapping, although it is not possible to provide an indicative estimate of the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.

The extraction of potential mineral resources in the AOS is likely to require potential upgrading to the existing lanes or a new access off the A452 Chester Road to serve any potential extraction sites. Potential adverse effects on Public Rights of Way would also need to be considered and appropriately mitigated. Due consideration would also need to be had to any adverse effects on communities and highways infrastructure in neighbouring Lichfield District. Other potential constraints include: proximity to housing in particular high value housing (e.g. the Mill Green Chase new housing development under construction on the footprint of previous farm buildings at Mill Green Farm); overhead power lines; potential for archaeology; and impacts on landscape, in particular the significant survival of historic field boundaries and hedgerows, especially in the Hob's Hole Lane area.

To date there has been no formal expressed interest in sand and gravel extraction in this AOS by the minerals industry. This combined with the area falling outside any AOS for sand and gravel as identified in the BCCS as well as the presence of existing (albeit currently non-operational) extraction sites nearby benefitting from access to appropriate infrastructure, could mean that proposals for sand and gravel extraction are unlikely to come forward in the short to medium term. Furthermore, the Council is unlikely to support further proposals for mineral extraction in the wider Aldridge area until there has been progress on the restoration of the existing Aldridge and Branton Hill quarries, not least because the cumulative impact of further large-scale mineral working is likely to be very significant.

On balance, the identification of this AOS in the SAD is unlikely to be justified, given the above considerations and that the AOS proposed at Birch Lane (MXA1) and Branton Hill (MXA2) in the Core Strategy are likely to have more potential for sand and gravel working in the short-term, even though they are themselves also subject to major constraints. However, the potential for working in this location could be revisited again when the Core Strategy is reviewed. In the meantime, Core Strategy Policy MIN2 provides sufficient flexibility to allow for mineral working in this AOS should a suitable proposal come forward here, in advance of proposals in the other AOS identified in the Core Strategy.

MXA7: Sandhills, Shire Oak Potential Area of Search

The potential AOS covers the area of Home Farm and Sandhills Farm off the A461 Lichfield Road in Shire Oak on the eastern boundary of the Walsall administrative area, that which borders Lichfield District in Staffordshire (see **Figure A4**). The area consists mainly of open farmland which extends beyond the borough boundary into Staffordshire. There are isolated dwellings/ farm buildings at Home Farm/ Sandhills House, Sandhills Farm, also Lodge and Shire Oak House fronting onto Lichfield Road (A461) and ribbon development (housing) along the southern edge of the area, fronting onto Chester Road (A452). The Anglesey Branch of the Wyrley and Essington Canal provides a clearly-defined boundary between this area and the urban areas to the north.

The AOS is located in close proximity to Shire Oak Quarry, which is located on the opposite side of the A461 Lichfield Road. The quarry is in Lichfield District in Staffordshire, although it is adjacent to housing fronting Lichfield Road in Walsall, and the access to the quarry is off Chester Road (A452), also in Walsall. As such, Staffordshire County Council is the relevant minerals planning authority for the quarry, whilst Walsall Council is the local highway authority. The AOS is located within the Green Belt as well as a BGS sand and gravel resource area and has been identified by the Council following a 'Call for Sites' submission (CFS25) in 2011 for housing on land at Home Farm, Sandhills. Following the Issues and Options consultation in 2013, the site promoter firmed up their proposals for the Sandhills site and expressed the view that it is not suitable for mineral extraction, without commenting on the potential of the resource present or the feasibility of working that resource.

Information provided by the Council shows that people living in this area are already being adversely affected by noise, dust, traffic and material deposited on the local roads from the existing Shire Oak Quarry. This has been an ongoing source of complaint from residents and Ward Members in Walsall (Aldridge North and Walsall Wood); although it is understood that some measures have been implemented recently to address the worst effects from dust, such as increasing the frequency of road sweeping and that the operator is also proposing to implement other dust control measures.

However, despite this, there is a current proposal to extend the quarry in two directions, to the north and to the east. These proposals have been submitted as potential site allocations in response to consultation on the Staffordshire and Stoke-on-Trent Minerals Local Plan (April 2014). Staffordshire County Council has recently consulted on these proposals along with other new options put forward for mineral extraction during the earlier consultation (October 2014). In its response to this consultation, Walsall Council has expressed concern about extending the quarry on grounds of: proximity of one extension area to existing residential properties; potential impacts on amenity of adjoining properties from noise and dust; potential impacts on the natural environment; potential impacts from pollution (air pollution, noise and dust); and potential impacts on the local highway network (A461, A452 and Shire Oak Junction) from increased traffic and material deposited on the roads.

As well as the proximity to housing and the potential cumulative impacts of quarrying in the wider Shire Oak area which would require close liaison with both Lichfield District Council and Staffordshire County Council, other key constraints that would need to be taken into account in this AOS include:

- ▶ Impacts on agricultural land and holdings – some of the agricultural land is classified as Grade 3a according to the current Agricultural Land Classification and as such, potential impacts on 'best and most versatile agricultural land' would have to be evaluated;
- ▶ Impacts on air quality – an AQMA²⁷ for NO₂ covers the whole of Walsall borough. Statutory limit values for NO₂ are already being exceeded in sections of the A461 and A5 corridors, which may form part of the haulage routes for material. A new quarry in this location would add to road traffic emissions as well as generating further particulate matter/ dust from quarry operations;
- ▶ Access constraints and impacts on highway capacity – a new access would be required onto the A461, an already congested route, which may require improvements to that transport corridor. Improvements in this corridor, including improvements to the Shire Oak Junction (A461 and A452), are already planned although these proposals would not have been designed to accommodate a new mineral extraction site in this location. Potentially costs of providing

²⁷ AQMA = Air Quality Management Area.

access and further improvements to the junctions, over and above that already planned (if required), may impact on viability;

- ▶ Profitability compared to alternatives – for example, land at Sandhills (CFS25) is being promoted for housing development through the ‘Call for sites’;
- ▶ Impacts on water resources – the proposed AOS is within a Groundwater Source Protection Zone (SPZ) Total Catchment area, so effective pollution control measures would be required;
- ▶ Impacts on flood risk and hydrology – hydrological assessment and surface water management strategy is likely to be required, as a number of linear features running north- east to south- west across the site (probably former stream channels that were tributaries of the Crane Brook which runs to the north of the area) have been identified by the Environment Agency as being at risk of surface water flooding during extreme rainfall events including some small areas at medium to high risk;
- ▶ Impacts on biodiversity and geological conservation – in particular the Anglesey Branch Canal SLINC which provides a link to other habitats beyond the potential AOS, such as the Wyrley & Essington Canal SLINC;
- ▶ Impacts on local landscape character – the potential AOS forms part of an agricultural landscape that extends across the Borough boundary into Staffordshire. Important landscape features within and around the AOS include the Anglesey Branch of the Wyrley & Essington Canal which forms a logical northern boundary, and the alignment of the former Sandhills Canal Arm now marked by a belt of trees and farm track within the AOS area; and
- ▶ Potential impacts on archaeology – including the former Sandhills Arm of Wyrley & Essington Canal and associated former canal wharf and buildings, some of which still survive.

Key to the viability and deliverability of any minerals extraction in this AOS is whether there is support from the landowner and/or the minerals to develop a viable sand and gravel extraction operation. The landowner has already indicated that he does not consider the Sandhills site suitable for sand and gravel and prefers alternative land uses, such as the partial retention in agricultural use, and partial development with housing; the latter which is likely to be more profitable and provide shorter-term gains than a mineral extraction scheme.

There is also uncertainty about whether the highway network would have the capacity to cope with the additional HGV movements generated by another quarry in this area, even with improvements, assuming that the cost of such improvements is not in itself prohibitive. Furthermore, the evidence suggests that the adverse cumulative effects of working in this area, as well as at Shire Oak Quarry, may be so significant as to impact on objectives for air quality and noise, and may also conflict with the national policy objective of ensuring a good standard of amenity for all existing and future occupants of land and buildings (NPPF paragraphs 17, 123 and 124).

On the basis of the evidence above, it seems reasonable to conclude that the adverse cumulative effects are likely to outweigh any benefits this potential AOS could have in terms of providing for future sand and gravel supply in Walsall. There appears to be no justification for identifying Sandhills as an AOS in the SAD when other more suitable and potentially less constrained alternatives are available, such as the proposed Birch Lane and Branton Hill AOS (MXA1 and MXA2) as identified in the Core Strategy.

6.5 Conclusions

The review of the 6 potential areas of search and 3 site allocations for sand and gravel has taken into account not only the two existing indicative AOS identified in the BCCS but also the four suggested additional AOS identified by the Council as a result of the consultation responses received to the SAD Issues and Options Report. All the potential site allocations which have been reviewed are located within those AOS previously identified in the Core Strategy. This is in part reflective of where sand and gravel quarries have been or are currently operational.

Areas of Search

There appear to be three options with regard to AOS for sand and gravel, including two alternatives to the approach proposed in the SAD Issues & Options Report:

- ▶ **Option A:** The SAD should identify the two AOS in the Core Strategy only (i.e. MXA1: Birch Lane and MXA2: Branton Hill) – this is the proposal identified in the Issues & Options report, which would be in accordance with Core Strategy Policy MIN2 and would also define specific boundaries for the AOS, giving more certainty as to where extraction may take place;
- ▶ **Option B:** The SAD should identify the two AOS in the Core Strategy (i.e. MXA1: Birch Lane and MXA2: Branton Hill), plus other AOS in areas where a potentially valuable sand and gravel resource exists – while this would provide more flexibility, the other potential AOS examined as part of this study are no less constrained (and in some cases more constrained) than those identified in the Core Strategy. Furthermore, there is no evidence of any current interest in sand and gravel extraction in these areas;
- ▶ **Option C:** The SAD should not identify any AOS for sand and gravel extraction, but rely on the definition of the MSA and mineral commodity area boundaries in Walsall and on the provision made in the Solihull Local Plan for sand and gravel extraction to provide future sand and gravel supplies – this would mean greater uncertainty about where sand and gravel working could take place in Walsall during the plan period, and would also place undue reliance on resources in Solihull, which are potentially compromised by the HS2 project and are also likely to be serving a different market area.

The evaluation summarised in Section 6.4 above shows that none of the potential AOS identified are without significant constraints which would have to be mitigated appropriately. Arguably it may be more likely that proposals for new sand and gravel extraction come forward within AOS or at sites with access to existing infrastructure or as extensions to permitted extraction sites such as those identified in the Core Strategy (i.e. MXA1: Birch Lane and MXA2: Branton Hill). Due consideration would need to be had to any potential cumulative effects of multiple extraction sites, particularly where such an area straddles the administrative boundaries of Walsall and Lichfield/ Staffordshire, for example at Shire Oak, where such effects may outweigh the benefits of mineral extraction.

Notwithstanding this, the question remains: to what degree should Walsall Council define AOS for sand and gravel in the SAD? The review above has identified that each possible AOS contains potentially valuable sand and gravel deposits. It further demonstrates that whilst each area is constrained to some degree, working of the minerals could be carried out in an environmentally sensitive manner subject to the incorporation of appropriate mitigatory measures.

Whilst Section 3.4 of this report has suggested that there is no need for Walsall to make provision for further sand and gravel extraction in the short-term because of the provision made in the Solihull Local Plan, it has also been noted that the resource areas identified in Solihull are likely to be compromised by the HS2 project. Therefore, to provide for the future sand and gravel requirements of the West Midlands Metropolitan Area, the SAD needs to identify where future extraction could take place in Walsall, even though in practice opportunities for extraction may not be taken up within the plan period due to availability of resources in Solihull and adjoining areas of Staffordshire.

Consideration also needs to be given to the role that identifying an AOS will have in safeguarding potentially valuable mineral deposits for future extraction. Specifically, Policy MIN1 of the BCCS states:

“Non-Mineral Development within the MSA

Proposals for non-mineral development within the Areas of Search (see MIN2 and MIN3) will not be permitted unless it can be demonstrated that the development will not result in sterilisation of the resources within these areas...”

As the BCCS looks to other development plans to refine the mineral commodity areas and without being able to refine the BGS mineral commodity areas in Walsall further due to limitations of the evidence base at present (see Section 3.4 of this report), the Areas of Search identified both in the Core Strategy and as developed by other plans become an important means of safeguarding known mineral deposits (under the provisions of Policy MIN1 above) as well as guiding the location of future working. In this context, it is

recommended that **the preferred option for the SAD is Option A above, to only identify the two Core Strategy AOS considered by this review (i.e. MXA1: Birch Lane and MXA2: Branton Hill)** – primarily as a mechanism for safeguarding deposits for future working but also to provide a degree of certainty to the minerals industry and to the public as to where working may take place in Walsall over the plan period, should a suitable proposal come forward.

The identification of the MSA in the Core Strategy and inclusion of separate mineral commodity maps (i.e. AOS) in the SAD will give further certainty to the minerals industry, developers, and the public, as to where sand and gravel resources may be found in Walsall. There is flexibility within Core Strategy Policy MIN2 to allow for working outside of these areas, if there is evidence that extraction proposals are unlikely to come forward within the AOS over the plan period. Whilst Core Strategy Policy MIN1 seeks to safeguard these resources by discouraging non-mineral development in the MSA, the need to protect Walsall's sand and gravel resources to meet the future needs of the West Midlands Metropolitan Area would provide sufficient justification for the SAD to include a stronger safeguarding policy for potentially viable sand and gravel resources in the Borough, for example, a presumption against non-mineral development in the identified sand and gravel resource area.

Site Allocations

For site allocations there are really only two options to consider:

- ▶ **Option A:** The SAD should allocate sand and gravel extraction sites – but this is only feasible where there is evidence that such sites are viable and deliverable; for example, there needs to be evidence of a clear interest from land owners and/ or aggregates operators; or
- ▶ **Option B:** The SAD should not allocate sand and gravel extraction sites – this is the only realistic option if no deliverable sites can be identified, in which case delivery of sand and gravel supplies will rely on other mechanisms such as MSA, AOS, and enabling policies.

As set out in Section 3.4, the critical review of the options identified in the SAD Issues and Options Report, questioned whether it was appropriate to allocate potential sand and gravel site allocations given it is evident that: none of the potential site allocations are without significant constraints; none of the potential sites are being actively promoted by mineral operators; and there are question marks over the economic viability of at least one of them. As such, there is no certainty that any of these sites will come forward for sand and gravel extraction during the plan period. It is recommended that **the preferred option is therefore Option B above, to not identify any site allocations for sand and gravel extraction in the SAD, but instead to adopt a policy framework which relies upon the identified AOS** (within which two of the three potential allocations are located).

7 Brick Clay

7.1 Introduction

This section provides an overview of the brick clay resources in the Walsall area in seeking to provide a complete overview of the main mineral resources in the Council area as part of the evidence base for the SAD and AAP. It also seeks to review those potential areas of search and site allocations which are being considered for inclusion in the SAD and AAP Preferred Options document.

7.2 Methodology and Approach

In accordance with national policy guidance in the NPPF (paragraph 146), mineral planning authorities are required to “*plan for a steady and adequate supply of industrial minerals*”, including brick clays, in co-operation with other minerals planning authorities. Local plans for minerals are also required to provide for a stock of permitted reserves sufficient to provide for 25 years of production at each brick manufacturing plant, where feasible. This policy is reiterated in the BCCS (Policy MIN3).

It is well documented that as a result of the underlying geology the minerals resources available in the Walsall area are wide ranging. As part of the SAD & AAP Minerals Project, Amec Foster Wheeler has sought to review the Core Strategy evidence for each of the main mineral resources in the Walsall area by providing:

- ▶ A brief overview of the underlying geology and the extent of the potential mineral resource (see **Figure 3.1**);
- ▶ What historic workings of the mineral resources has taken place, where that information is available in the public domain or been provided by the Council; and
- ▶ List existing and potential mineral extraction sites.

Due consideration has been given to information available in the public domain and information provided by the Council (e.g. planning application history). Where appropriate, consultation with neighbouring mineral planning authorities has been undertaken.

7.3 Background / Context

Industrial Mineral Resources – Review of Core Strategy Baseline Evidence

As well as seeking to safeguard potentially important industrial mineral resources, local plans for minerals need to identify areas where extraction of such minerals may be acceptable in principle, subject to appropriate environmental safeguards. As noted in previous sections of this report, the BCCS has addressed the key requirements of the NPPF for the safeguarding of industrial mineral resources through Policy MIN1 as well as identifying a broad Mineral Safeguarding Area (MSA) on the Minerals Key Diagram and indicative resource areas for brick clay and limestone in Appendix 7 (Map MC2).

Core Strategy Policy MIN3 also identifies 3 Areas of Search for brick clay extraction, one of which is within Walsall, namely MA5 Stubbers Green, as well as an Area of Search for fireclay extraction (MA6: Yorks Bridge) which is considered in the next chapter. Within the Stubbers Green area (though not all within the Area of Search) there are three brickworks (Aldridge, Atlas and Sandown) all of which are in full time production, as well as two active quarries (Atlas and Sandown) which supply the adjacent brickworks, as set out in Table 7.1.

Table 7.1 Active Brickworks and Brick Clay Extraction Sites in Walsall (as at December 2014)

Brickworks	Operator	Site Supplying Etruria Marl	Supply Site Linked to Brickworks	Maximum % of Clay Imports Permitted
Aldridge Factory	Ibstock Brick Ltd	Imports only	No	100%
Atlas Factory	Ibstock Brick Ltd	Atlas Quarry	Yes (Atlas)	30%
Sandown Factory	Wienerberger Ltd	Sandown Quarry	Yes (Sandown)	65%

Source: Information on Brick Clay Issues provided by Walsall Council (2014).

The evidence base for the Core Strategy included a preliminary review of the mineral resources of local and national importance available in the Black Country, including industrial minerals²⁸. This established that (in addition to fireclay) the following types of industrial minerals occur naturally in Walsall:

- Limestone (Much Wenlock Series) – limestone occurs as subordinate deposits within Silurian and Devonian shales and includes Barr and Much Wenlock Limestone, which occurs in and around Walsall Town Centre, Rushall/ Daw End, and parts of Great Barr and Aldridge; and
- Brick Clay (Etruria Formation) – known locally as Etruria Marl, this is a high quality red clay which occurs as a sequence of mudstones (marl) and siltstones within the Coal Measures. The main resource areas for this type of clay are in the Stubbers Green, Shelfield, and Walsall Wood areas to the north and west of Aldridge.

Limestone was worked extensively in the past in Walsall, but mainly for hydraulic lime rather than as a building stone²⁹. Some former limestone quarries have naturally regenerated and are now of importance for geological conservation and biodiversity (e.g. Park Lime Pits and Cuckoo's Nook are both designated as LNRs and SINC). Elsewhere, such as in parts of the Town Centre (see Section 2.4), limestone was often worked using the 'pillar and stall' method (i.e. removing as much as possible of the rock, and leaving pillars to hold up the roof). This has left below-ground voids, potentially affecting ground stability, and even where sites have been treated it can affect load bearing capacity. The areas of Walsall affected by historic limestone mining are shown on an interactive map published on the Council website³⁰. It is unlikely to be feasible to work any limestone resources that remain on any scale in the future given the constraints to working which include designated sites, proximal urban development, and geotechnical risks.

Walsall's main brick clay resource is Etruria Marl, which outcrops at or near to the ground surface in the Stubbers Green and Shelfield areas to the south of the A461 (Walsall Road). This is currently the main focus for brick clay extraction and brick manufacture in Walsall – there is an aerial view of this area on the front cover of the BGS Mineral Resource Report for the West Midlands, showing existing and former quarries and associated brickworks³¹. While the BGS mineral resource mapping shows the Etruria Marl resource area extending to the north of the A461 into Walsall Wood, more detailed geological mapping shows that in this area the Etruria Marl 'down dips' beneath mudstones and sandstones of the Keele and Enville Formations (which may also yield some brick clay), which are themselves overlaid by more recent alluvial deposits. The complexity of the geology and hydrology in this area means that the brick clays present here are likely to be more challenging to work.

²⁸ See: Chapter 4 (in particular, 4.3.1 – 4.3.4 and 4.3.5 – 4.3.8) and Figures 2 and 3, "Black Country Joint Core Strategy Minerals Study 2008" by RPS; see also Sections 4 (4.24 – 4.38) and 5.2 of "Black Country Core Strategy Minerals Background Paper 2" (2010), Black Country Authorities.

²⁹ See: "Strategic Stone Study - Staffordshire Building Stone Atlas" (Jan 2012), British Geological Survey and English Heritage.

³⁰ See: <https://stratus.pbondemand.eu/connect/walsall/?mapcfg=Limestone>.

³¹ However, this probably dates from the late 1990s - see: Mineral Resource Information for Development Plans: West Midlands Resources and Constraints (Birmingham, Coventry, Dudley, Sandwell, Walsall and Wolverhampton) (1999), British Geological Survey and former DETR.

The extent of brick clay resources in Walsall is identified on Map 9.1 of the SAD Issues and Options Report (April 2013), which reproduces the current BGS digital mineral resource mapping for Walsall without the 500 metre buffer zones around the limestone resource areas and the 50 metre buffer zones around the brick clay resource areas, which are shown on Core Strategy Map MC2³². The options for safeguarding these areas, including the potential for further refinement of the brick clay resource areas to show the extent of resources that 'down dip' beneath other mineral deposits, are considered in Section 3 of this report (specifically Section 3.4, Minerals Option 1).

Brick Clay Requirements – Development of Options

The SAD Issues and Options Report sets out that all three operational brickworks in Walsall – Aldridge, Atlas, and Sandown – require a 25 year supply of brick clay to be identified where feasible. Brick clay is currently being extracted at Atlas and Sandown Quarries, each of which supplies the adjacent brickworks.

Aldridge Brickworks has no quarry and as such its supplies have to be imported from other areas. The factory uses up to 75,000 tonnes per annum of brick clays and fireclays, and produces around 27 million bricks a year including red, buff, and quality facing bricks. Until recently, a significant proportion of this factory's requirement for Etruria Marl was met from Highfields South in Walsall but extraction at that site ceased in 2013 and all of the factory's brick clay now has to be imported from further afield³³.

Atlas Brickworks still has a significant supply of clay from the adjacent Atlas Quarry but the Issues and Options Report indicates that the permitted reserves at the quarry do not amount to a 25-year supply. The factory uses up to 120,000 tonnes of clay per annum, around 97% of which is currently Etruria Marl sourced from the adjacent quarry. The factory produces around 40 million bricks a year made up of a range of brick types, including 'Class B' engineering bricks and red facing bricks³⁴. There is a current planning application to expand the quarry (14/0619/CM), which if approved, would provide the required minimum 25-year supply to both Atlas and Aldridge brickworks without relying on significant imports of clay from outside Walsall.

Sandown Brickworks is also heavily reliant on imports to supplement the remaining reserves at Sandown Quarry, which are expected to run out before the end of the plan period³⁵. The factory uses up to 210,000 tonnes of clay per annum of various types, and produces up to 73 million bricks per annum comprising high quality facing and engineering bricks. In addition to the Etruria Marl from the adjacent quarry, the factory uses a variety of imported clays, mainly from Staffordshire, although certain types of clay (including fireclay) are also sourced from Shropshire, Warwickshire, and Leicestershire. Going forward, imports of Etruria Marl are expected to be sourced increasingly from South Staffordshire³⁶.

In addition to Etruria Marl and other brick clays, the above brickworks also use smaller quantities of fireclay which is currently all imported from outside the Borough, in that the only site with a local source is on part of the former Birch Coppice site in Brownhills where previously extracted fireclay has been stockpiled. However, this stockpiled fireclay is being used by an adjacent factory (Swan Works) in the manufacture of pot clay blends, and not, as far as we are aware, for brick manufacture. The potential for further fireclay extraction in Walsall is addressed in Section 8 of this report.

The SAD Issues and Options Report identified one potential site allocation for the future extraction of brick clay (MXP3: Recordon Land) as well as two potential areas of search, one at Stubbers Green around the

³² Maps MC1 – MC3 in Appendix 7 of the Core Strategy are based on Figure 4 of the "Black Country Joint Core Strategy Minerals Study 2008" by RPS.

³³ As stated in supporting information supplied with current planning application 14/0619/CM.

³⁴ As stated in supporting information supplied with current planning application 14/0619/CM.

³⁵ Under the terms of the current permissions (BA17797P as varied by 08/1338/FL), Sandown brickworks is allowed to import up to 65% of the clay it uses. In March 2015, a new application was submitted to allow up to 95% imports to Sandown brickworks (15/0303/FL). This application had not been determined at the time this report was completed.

³⁶ As stated in supporting information supplied with current planning application 15/0303/FL. An application has also been made to Dudley MBC to extend Oak Farm Clay Pit in Himley and to allow extracted clay to be exported to Sandown brickworks in Walsall (P14/1780). However, if approved, Oak Farm is only likely to provide Sandown brickworks with a short-term supply, lasting 2 to 4 years.

existing quarries (MXA3) which reflects that identified in the BCCS (MA5), and the other to the north of the A461 (now referenced as MXA9), corresponding to the resource area mentioned above. The Issues and Options Report identified two options for future brick clay supply: Minerals Option 3a was for the SAD to identify the Stubbers Green AOS only, and Minerals Option 3b was for the SAD to identify the Stubbers Green AOS plus an additional AOS north of the A461.

No representations were received on either of the brick clay supply options identified and no new extraction sites were put forward during the Issues and Options consultation, although representations were received from Staffordshire County Council, expressing concern about deficiencies in brick clay supplies in Walsall. During follow-up discussions with Staffordshire County Council and South Staffordshire Council under the Councils' duty to co-operate, both councils expressed concern about the potential for future export of clay from the Essington/ Cheslyn Hay area to brickworks in Walsall, mainly on the grounds of impacts from increased quarry traffic. This part of Staffordshire is an important source of brick clays and fireclays and is the nearest resource area outside Walsall Borough³⁷. There are a number of permitted sites in this area (some inactive) where imported clay could be sourced, although the Council has been informed by Staffordshire County Council that some of these sites are subject to restrictions which prohibit export of clay.

Subsequent to these discussions, in December 2013 a submission was received from Ibstock Brick Ltd, in response to the second 'Call for Sites' for the allocation of site MXP3: Recordon Land for brick clay extraction (CFS55). Following the Issues and Options consultation, the Council has also identified a 'dormant' site with an old permission for brick clay extraction at Highfields North, which is within the second potential Area of Search north of the A461 identified in the Issues and Options Report.

7.4 Review Findings

Each of the potential brick clay Areas of Search (AOS) and potential site allocations have been assessed in terms of their viability and deliverability. The results of that assessment are summarised below, whilst completed assessment proformas and supporting figures are attached in **Appendix A**. The potential AOS and site allocations have been grouped in accordance with the seven SAD Minerals Site and Area Options groupings identified by the Council and outlined in Table 4.2. Those Site and Area Options relevant to brick clay are:

- ▶ E: Stubbers Green & Walsall Wood Area Options (Figure A5); and
- ▶ F: Highfields North Area Options (Figure A6).

MXA3: Stubbers Green Potential Area of Search

This potential AOS is located in the Stubbers Green Road area of Aldridge and covers an area of nearly 74 ha (see **Figure A5**). Located in the Green Belt, the area consists of open land dominated by active permitted clay extraction sites (Atlas and Sandown Quarries (MP2 and MP7)) and associated brickworks, bisected by Stubbers Green Road, and open space (Recordon Land (MXP3)) used as horse grazing and for other recreational purposes. The latter forms part of a network of linked open spaces extending to the north, which provide mainly grassland/ wetland habitats and recreational land uses.

The AOS adjoins residential development to the west, as well as the Aldridge employment area and Former Bace Groundworks Site (AR1) to the south and east. Located in the Green Belt, the potential AOS reflects that which has been identified in the BCCS (Policy MIN3) as well as the mineral safeguarding area in the former Walsall UDP 2005.

Key constraints to the viability and deliverability of potential brick clay extraction within the AOS include the extent of previous mineral extraction, which means that very few areas have not been previously worked for either coal or brick clay, and potential impacts on hydrology and wetland habitats to the north (which have in some cases been created as a result of previous mining activity), as well as potential impacts on biodiversity and ecology specifically in relation to the designated SSSIs, SINCs, and the various wildlife corridors (some designated as SLINCs) within the area and beyond.

³⁷ See: Section 3.10 and Figures 8 and 9, "Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council" (2006), British Geological Survey.

MXP3: Recordon Land Potential Site Allocation

The potential site is located immediately to the south of Stubbers Green Road and to the north of the existing Atlas Quarry (MP2) (see **Figure A5**). Located in the Green Belt, the nearly 8.5 ha site lies within a proposed area of search as identified in the BCCS (Policy MIN3) and is also designated as a SINC in the adopted Walsall UDP. As well as being within a BGS brick clay resource area, the site has been identified as a result of a Call for Sites Submission in 2011 (CH94) as a potential extension to Atlas Quarry and is currently subject to a planning application (14/0619/CM). A decision is anticipated some time during 2015.

The site consists of open land used mainly for horse grazing and forms part of a network of linked open spaces extending to the north, which provide mainly grassland/ wetland habitats and recreational land uses. Areas immediately to the south and east, on either side of Stubbers Green Road, are mainly occupied by active clay extraction sites and brickworks.

Key issues which would need to be taken into consideration as to whether the site could be viable and deliverable include:

- ▶ Proximity to housing and any cumulative impacts from quarrying in the area given the proximity to two existing quarries as well as any potential effects relating to the legacy of historic mining and quarrying in the area;
- ▶ Impacts on biodiversity given the network of linked wetland and grassland habitats, parts of which (i.e. Stubbers Green SINC and SLINC) would be destroyed by any future brick clay extraction at Atlas Quarry;
- ▶ Potential flood risk and hydrology impacts given that the site is within Flood Zones 2 and 3 and as such there is a medium/high probability of fluvial flooding in addition to high/ medium risk of surface water flooding during extreme rainfall events as identified by the Environment Agency; and
- ▶ Proposals for restoration and after use particularly in relation to existing habitats, water and flood management issues in the wider area.

Should planning permission for the proposed extension to Atlas Quarry at this site be granted, there would no longer be a need to identify the site as a potential site allocation in the SAD.

MXA9: Land North of A461, Walsall Wood Potential Area of Search

This AOS incorporates land between Walsall Road, Hall Lane and Green lane in the Shelfield area of the Borough (see **Figure A6**). Located within the Green Belt, the AOS consists predominantly of open land used either for agriculture or open space. Areas to the south of Green Lane are mainly used as informal open space and/or pasture/horse grazing land, with the larger fields north-east of Green Lane used either for arable or pasture uses. More recent land uses include: Walsall Wood Sewage Treatment Works (Severn Trent Water) to the north of Green Lane; and recreational land uses adjoining the urban areas to the south, including ribbon development of both housing and commercial uses to the south-east, along the frontage of the A461 Walsall Road.

The area is identified within a BGS brick clay (Etruria Formation) resource area and was identified by the Council in the SAD Issues and Options report as a potential second area of search for brick clay extraction (Minerals Options 3b) as well as incorporating three potential housing sites within the Green Belt following Call for Site submissions in 2011 (CH14, CH43, and CH66). The area also includes the potential site allocation at Highfields North (MXP6).

Potential constraints to brick clay extraction in the AOS include the likely need for highway improvements including a new access of the A461 Lichfield Road and improvements to the A461 corridor especially in relation to any potential future extraction at Highfields North. In addition, highway capacity and congestion are a potential constraint to new development in the A461 and A5 corridors, not least with regards to potential impacts on air quality and in particular the AQMA of NO₂ which has been declared for the whole Walsall borough. Other constraints to be taken into consideration include:

- ▶ Potential difficulty of working the brick clay resources in this area, given the complexity of the geology and hydrology, and the likely extent of overburden (see Section 7.3 above);

- ▶ Proximity to existing/proposed housing and community facilities as well as commercial/recreational properties;
- ▶ Impacts on agricultural land and holdings – some of the agricultural land in the northern half of the proposed AOS is classified as Grade 2 and 3a according to the current Agricultural Land Classification and as such potential impacts on ‘best and most versatile agricultural land’ would have to be evaluated;
- ▶ Legacy of historic mining and quarrying in some parts of the area and therefore potential for ground condition problems;
- ▶ Impacts on air quality – an AQMA for NO₂ covers the whole of Walsall borough. Statutory limit values for NO₂ are already being exceeded in sections of the A461 and A5 corridors, which may form part of the haulage routes used to transport clay from extraction sites within the proposed AOS to potential end users in Walsall Borough and neighbouring areas;
- ▶ Access constraints and impacts on highway capacity – there are no obvious vehicular access points to this area, so a new access is likely to be required to onto the A461 to serve a new extraction site within the proposed AOS. This is an already congested route, where junction improvements are proposed, which would not have been designed to accommodate a new mineral extraction site in the AOS. Potential costs of providing access and further improvements to the junctions, over and above that already planned (if required), may impact on viability;
- ▶ Impacts on Public Rights of Way (PROWs) – there are two Definitive PROWs running east-west across the proposed AOS between Green Lane and Walsall Road (A461), which would have to be diverted to maintain public access if they were to be included within any future working areas;
- ▶ Impacts on flood risk and hydrology – the proposed AOS has a complex hydrology, being criss-crossed by a number of small streams and pools, and includes significant areas that are identified by the Environment Agency as being at high/ medium risk of surface water flooding during extreme rainfall events;
- ▶ Impacts on biodiversity and geological conservation – the proposed AOS has significant value for biodiversity. A substantial part of the AOS, including most of the Highfields North site (MXP6), has been designated as a SSSI (Jockey Fields) and much of the surrounding area is designated as a SLINC (Jockey Fields), forming part of the SSSI consultation area. Potential impacts on designated sites are considered in further detail under the section MXP6: Highfields North below;
- ▶ Impacts on local landscape character – the proposed AOS is an area of relatively unspoiled open landscape, characterised by wetland and woodland areas, small fields enclosed by hedgerows, and larger areas of arable agriculture; and
- ▶ Potential impacts on archaeology – evaluation would be required to determine potential impacts on archaeology of any sites considered for mineral extraction within the proposed AOS.

Key to the viability and deliverability of any potential brick clay extraction proposals within the AOS will be: the feasibility of working the brick clay resources present within this site given the complexity of the geology and hydrology; how easy it would be to manage all of the environmental effects of mineral working; the added costs of providing access/ highway improvements to facilitate a new extraction site; and whether there is an interest by the minerals industry to bring a suitably designed project forward (given the potential time and costs), as well as the willingness of the landowner(s) to pursue such an operation as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing.

MXP6: Highfields North Potential Site Allocation (‘Dormant’ Site)

This is a site with an existing ‘dormant’ mineral permission which is located to the north of the A461 Lichfield/Walsall Road, in the Shelfield area of Walsall (see **Figure A6**). Covering an area of just over 18 ha,

the site comprises informal open space and horse grazing land. Agricultural land is located immediately to the north-west of the site and ribbon development consisting of both housing and commercial uses to the south-east along the frontage of Walsall Road (A461).

The site has been identified by the Council as falling within a BGS brick clay resources area and is subject to a 1954 unimplemented 'dormant' planning permission for minerals extraction (EB593)³⁸ and a 1977 approved working plan (BA5827). In November 2014, the Council received Prior Notification of proposed exploratory test drilling on the site; however, it is not clear whether this has taken place and if so, whether the outcome of this has been positive in terms of identifying the existence of winnable brick clay resources.

Other than a willingness by the minerals industry to bring the site forward for development, key constraints to potential extraction of brick clay resources include:

- ▶ Potential difficulty of working the brick clay resources in this area given the complexity of the geology and hydrology, and likely extent of overburden (see Section 7.3 above);
- ▶ Proximity to existing and proposed housing and community facilities as well as commercial/recreational properties – this includes the neighbouring Highfield Farm, residential properties and church on Walsall Road as well as the Horse & Jockey public house, Bournevale Motors used car showroom³⁹, and Baron's Court Hotel;
- ▶ Legacy of historic mining and quarrying in some parts of the area and therefore potential for ground condition problems;
- ▶ Impacts on air quality – an AQMA for NO₂ covers the whole of Walsall borough. Statutory limit values for NO₂ are already being exceeded in sections of the A461 and A5 corridors which may form part of the haulage routes used to transport clay from the site to potential end users in Walsall Borough and neighbouring areas. Depending on the direction of haulage, a new quarry at the potential site allocation is likely to generate significant net additional HGV movements in these corridors adding to congestion and traffic emissions, which could make it more difficult to meet statutory obligations to reduce emissions;
- ▶ Access constraints and impacts on highway capacity – a new access would be required onto the A461, an already congested route, which may require improvements to that transport corridor. Some junction improvements in that corridor are already planned although these proposals would not have been designed to accommodate a new mineral extraction site. Potentially costs of providing access and further improvements to the junctions, over and above that already planned (if required), may impact on viability;
- ▶ Impact on Public Right of Way (PROW) – there is a Definitive PROW running east-west across the site linking Green Lane to Walsall Road (A461), which would have to be diverted to maintain public access;
- ▶ Impacts on biodiversity and geological conservation – this area has significant value for biodiversity. Most of the Highfields North site (MXP6) has been designated as a SSSI (Jockey Fields) and much of the surrounding area is designated as a SLINC (Jockey Fields), forming part of the SSSI consultation area;
- ▶ Impacts on flood risk and hydrology – the site has a complex hydrology, being criss-crossed by a number of small streams and pools, and includes significant areas that are identified by the Environment Agency as being at high/ medium risk of surface water flooding during extreme rainfall events;
- ▶ Impacts on local landscape character – site is within a relatively unspoiled open landscape, characterised by wetland and woodland areas with small fields enclosed by hedgerows; and

³⁸ A 1998 proposal to revoke the old mineral permission (conditional on implementation of coal and clay extraction on another site) appears not to have been taken forward.

³⁹ Planning permission was granted in March 2015 for housing development on the Bournevale Motors site (14/1720/FL).

- ▶ Potential impacts on archaeology – evaluation would be required to determine potential impacts on archaeology within the proposed site.

The designated sites, which cover most of the permitted area, are a major constraint to mineral working. These designated sites contain a variety of mainly wetland habitats, including well-grazed damp pasture, neglected grassland, fen and mire, and are near to Highfields South (MP6) to the south of Walsall Road (A461), which is being restored to support wetland, grassland and woodland habitats of similar type, and Daw End Branch Canal SLINC which runs to the east.

Clay extraction in this area is likely to lead to long-term losses of habitats, which may not be easy to compensate for, given the complexity of the habitats present and the difficulty of creating/ re-creating this type of habitat. Mineral extraction is also likely to have indirect impacts on habitats in the surrounding area. This means that any working plans and restoration programmes submitted with a ROMP application would have to be informed by ecological and hydrological assessments to identify the most effective working strategy, so as to minimise environmental damage and loss of habitats.

It would also have to be demonstrated that the needs and benefits of the proposed development outweigh any loss or irreparable damage caused to the designated sites, in particular the SSSI, in line with current national policy guidance (NPPF paragraphs 109, 118 and 144) and local plan policy (Core Strategy Policy ENV1). This would include showing that the scheme has been designed to minimise, mitigate, and manage harmful effects on the designated sites, for example, through retaining as much habitat as possible for as long as possible, provision of compensation for unavoidable habitat losses (probably involving provision of replacement habitats of equivalent value off-site), identifying opportunities for geological conservation, minimising impacts on biodiversity in the surrounding area, and restoration to provide high quality habitats of similar value to those lost once extraction has been completed.

To sum up, the following factors are considered key to the viability and deliverability of the site as a potential brick clay extraction site:

- ▶ The feasibility of working the brick clay resources present within this site, given the complexity of the geology and hydrology, although geological maps and the 'dormant' permission suggest that they may be easier to work than those in other parts of the Potential AOS (MXA9);
- ▶ The potential difficulties and costs of successfully minimising, mitigating and managing the combined environmental effects of mineral working on this site, including potential impacts on air quality, hydrology, biodiversity, geological conservation, archaeology and landscape, and potential costs of providing compensatory replacement habitats off-site to offset the loss of the SSSI and SLINC;
- ▶ The willingness of land owners to consider mineral extraction as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing (although the recent Prior Notification for test drilling mentioned above suggests that the landowners are at least keeping open the option of mineral extraction, as such it cannot be ruled out that a ROMP application may come forward some time during the plan period); and
- ▶ The potential additional costs of requirements for a new highways access and likely highway improvements in an already congested A461 corridor.

7.5 Conclusions

The review of the potential area of search and site allocations for brick clay has taken into account the AOS identified in the BCCS as well as an additional AOS identified by the Council as a result of consultation responses received to the SAD Issues and Options Report. Both potential site allocations are located in either of these two AOS; indeed the MXP3 Recordon Land site is currently subject to a planning application, a decision on which is awaited, and the MXP6 Highfields North site appears to be subject to site investigations to test the extent of the resource. Should permission be granted for working on the Recordon Land, it would no longer need to be considered as a potential site allocation but would be included within the permitted area of Atlas Quarry.

In terms of identifying a long-term supply of brick clay for Sandown Brickworks, the review of potential brick clay AOS and site allocations supports the Minerals Option 3b identified in the SAD Issues and Options Report; namely to identify an Area of Search for brick clay to the north of the A461 (i.e. MXA9). The complex mosaic of wetland habitats which make up the Jockey Fields SSSI, which would be largely destroyed if the Highfields North site was to be worked, would be very difficult to replicate through compensatory provision off-site, translocation or restoration following completion of mineral working.

The identification of a wider AOS north of the A461 would enable extraction of brick clay outside the Jockey Fields SSSI, allowing for an appropriate but significant 'buffer' between any potential extraction areas and the SSSI, and thereby providing justification for resisting working within the SSSI at Highfields North. The provision of an appropriate stand-off area around the SSSI, acknowledging that the habitats outside the SSSI boundary are of similar type although of a lesser quality and designated a SLINC, and working in these areas could impact on the SSSI, will be a key consideration in terms of the viability of any future working of brick clay in this area. However, the evidence of geological mapping suggests that the Etruria Marl deposits are 'down dipping' in this area, and are getting progressively deeper the further north they go, and may therefore not be as easily winnable as the deposits within the Highfields South site.

The review has established that none of the options considered are without significant constraints that would need to be mitigated accordingly. Furthermore, due consideration would need to be given to the potential cumulative effects of the concentration of mineral extraction and brickworks within the wider area and whether or not it would be feasible for the remaining permitted brick clay reserves and any future brick clay resources to serve all three brickworks in the area even though there are currently two operators involved. Indeed there is sufficient flexibility in the BCCS, notably Policy MIN3, to enable the consideration of such an option, but this would be subject to the operators agreeing to "share" resources and there is no guarantee that such an agreement can be reached.

Evidence indicates that the remaining resources in the Stubbers Green area are sufficient to provide a 25-year supply to both Aldridge and Atlas Brickworks, although it is unlikely to also provide a long-term supply for Sandown Brickworks once the remaining reserves at Sandown Quarry are exhausted. As a result, three potential options for securing a long-term supply of brick clay for Aldridge, Atlas and Sandown Brickworks have been identified, namely:

- ▶ **Option A:** Reliance on remaining resources within the Stubbers Green Area of Search (MXA3) identified in the Core Strategy only. However, there are unlikely to be sufficient resources remaining in this area to provide a 25-year supply of Etruria Marl to Sandown Brickworks as well as to the two other brickworks. This option would, in any case, depend on agreement being reached between the operators to share the resources within the expanded Atlas Quarry, which is far from certain;
- ▶ **Option B:** The identification of a second Area of Search on land to the north of the A461. This would enable the extraction of brick clay, ideally outside the Jockey Fields SSSI, allowing for an appropriate but significant 'buffer' between any potential extraction areas and the SSSI, and thereby providing justification for resisting working within the SSSI at Highfields North (MXP6); and
- ▶ **Option C:** Acceptance that Sandown Brickworks will eventually become 100% reliant on imports from outside Walsall – though this will depend on the availability of suitable resources in other areas and 'co-operation' with the relevant minerals planning authorities, which given the uncertainties, may not be considered as a 'reasonable option'. However, it is noted that there is a current application (15/0303/FL) to increase imports of clay to 95% and the supporting information indicates that imported clay is likely to be sourced from areas outside Walsall.

In terms of securing a future supply of brick clay for the three operational brickworks in Walsall in accordance with national policy guidance, **this study recommends Option 2 above (which is essentially the same as Minerals Option 3b in the SAD Issues & Options Report), to identify two Areas of Search, namely Stubbers Green (MXA3) and Land to the North of the A461 (MXA9) as preferred options in the SAD in that this is the approach most likely to provide a long-term supply of brick clay to Sandown Brickworks.** This option would help minimise the distance brick clay supplies need to travel to the brickworks, as well as providing flexibility in the event that clay cannot be sourced from an expanded Atlas Quarry, or it is not possible to source sufficient clay from sites outside Walsall Borough.

8 Fireclay

8.1 Introduction

This section provides an overview of the fireclay resources in the Walsall area as part of providing a complete overview of the main mineral resources in the Council area as part of the evidence base for the SAD and AAP. In particular, this section considers the potential for strategic stockpiling of fireclay within the proposed Yorks Bridge Area of Search and/or other locations other than at existing brickworks and clay extraction sites.

8.2 Methodology and Approach

In accordance with national policy guidance in the NPPF (paragraphs 146 and 147), mineral planning authorities are required to “*plan for a steady and adequate supply of industrial minerals*”, including fireclays, in co-operation with other minerals planning authorities, and are expected to “*indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable*”. These requirements are already addressed at a strategic level in the BCCS (Policies MIN3 and MIN4).

It is well documented that as a result of the underlying geology the minerals resources available in the Walsall area are wide ranging. As part of the SAD & AAP Minerals Project, Amec Foster Wheeler has sought to review the Core Strategy evidence for each of the main mineral resources in the Walsall area by providing:

- ▶ A brief overview of the underlying geology and the extent of the potential mineral resource (see **Figure 3.1**);
- ▶ What historic workings of the mineral resources has taken place, where that information is available in the public domain or been provided by the Council; and
- ▶ List existing and potential mineral extraction sites.

Due consideration has been given to information available in the public domain from sources such as the British Geological Survey (BGS) and Coal Authority, as well as information provided by the Council (e.g. planning application history). Where appropriate, this information has been supplemented by Amec Foster Wheeler’s own investigations as well as having undertaken consultation with neighbouring mineral planning authorities.

8.3 Background / Context

Fireclay Resources – Review of Core Strategy Baseline Evidence

Fireclay, which is of importance for brickmaking (and is also used in manufacture of refractory products and pot clay blends⁴⁰), occurs in association with surface coal measures. The main resource area for fireclay in the Borough is to the west of Brownhills, where clay and surface coal resources occur at relatively shallow depths below the ground surface as shown on **Figure 3.1**.

The extent of fireclay resources in the Black Country was not considered in detail in the Core Strategy baseline evidence, although it was noted that there are potentially accessible fireclay resources in Brownhills and surrounding areas of Walsall Borough⁴¹. These resources have been worked in the relatively recent

⁴⁰ See Mineral Planning Factsheet: Fireclay (October 2006), British Geological Survey for CLG

⁴¹ See: Chapter 4 (in particular, 4.3.5) and Figures 2 and 3, “Black Country Joint Core Strategy Minerals Study 2008” by RPS, see also Sections 4 and 5 (in particular, 4.41 – 4.48 and 5.17 – 5.18) of “Black Country Core Strategy Minerals Background Paper 2” (2010), Black Country Authorities

past at Birch Coppice (MP3) in the 1950s, and more recently at Ryders Hayes in Pelsall between 1998 and 2001, as part of the last opencast coal extraction scheme in Walsall.

The fireclay resources in Walsall occur within the Middle Coal Measures of the South Staffordshire Coalfield where the Shallow and Deep Coal are separated by various thicknesses of fireclay⁴². As such, the extraction of fireclay is unlikely to be feasible without also extracting the coal. The two minerals would therefore have to be worked together. Coal resources are discussed separately in the next section, Section 9, of this report.

A report on mineral resources in Staffordshire, produced by BGS in 2006 for Staffordshire County Council, re-iterates this point and expresses the view that areas of primary shallow coal, within which the coal seams are relatively thick and closely spaced, are likely to contain the best prospects for shallow coal mining and also, by association, fireclay; although the report also notes that significant areas where these resources occur have already been worked by surface mining, which will have removed the coal and fireclay. It also cautions that the carbon and sulphur content of fireclays can vary and that this may affect its suitability for brick manufacture. The report identifies likely areas of shallow coals with associated fireclay resources in the County, including an extensive resource area in the Wyrley, Essington, and Cheslyn Hay areas of Cannock Chase and South Staffordshire Districts, adjoining the boundary with Walsall Borough⁴³.

Potential for Fireclay Extraction – Development of Options

The BCCS (Policy MIN3) identifies only one area of search for fireclay which is in the Brownhills area, namely MA6 Yorks Bridge. Furthermore, opportunities to produce fireclay through surface coal working are required to be exploited where feasible and environmentally acceptable in accordance with Policy MIN4 of the Core Strategy.

Three alternative options for the Yorks Bridge AOS were identified in the SAD Issues & Options Report (April 2013), as follows:

- ▶ Minerals Option 4a: Wyrley Estates Option – based on an area put forward on behalf of Wyrley Estates in response to consultation on the Core Strategy;
- ▶ Minerals Option 4b: Potters Clay & Coal Company Option – based on the “red line” area of a prospecting notice for coal extraction submitted by the former British Coal in 1990; and
- ▶ Minerals Option 4c: Include Brownhills Common and Yorks Bridge – based on a combination of Options 4a and 4b, plus the two potential extraction sites indicated below.

The report also identified two potential coal and fireclay working sites which were included within the boundary of Option 4c, namely:

- ▶ MP5: Brownhills Common – a site within Brownhills Common which is subject to a “dormant” mineral permission dating from 1954 (EB233); and
- ▶ MXP4: Land at Yorks Bridge – a site put forward for various alternative land uses, including mineral extraction, by St. Modwen in response to the first “call for sites” (2011) (CFS27).

The proposed AOS and the Land at Yorks Bridge site are adjacent to the boundary between Walsall Borough and Cannock Chase District in Staffordshire⁴⁴. Concerns about the impacts of coal and clay extraction in this area have been expressed by Staffordshire County Council and Cannock Chase District Council, who have also questioned the viability and deliverability of coal and clay extraction in this area. These concerns were re-iterated in discussions between Council officers and officers from Staffordshire

⁴² See: Memoirs of the Geological Survey England and Wales, The Geology of the County around Lichfield, 1919; see also Pages 14 – 15 of “Mineral Resource Information for Development Plans: West Midlands Resources and Constraints (Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton)” (1999), British Geological Survey.

⁴³ See: Section 3.11 and Figure 8, “Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council” (2006), British Geological Survey.

⁴⁴ Part of the Yorks Bridge areas put forward during the Core Strategy consultation, and part of the Land at Yorks Bridge put forward by St. Modwen in their “call for sites” submission are in Cannock Chase District. The Council has made it clear to the promoters that the SAD may not allocate any land outside the boundary of Walsall’s administrative area.

following the Issues & Options consultation, as part of the Councils' duty to co-operate on strategic cross-boundary issues.

Although no objections were received from local residents to the proposals in the Yorks Bridge area, Council officers are aware that a future ROMP application for working the Brownhills Common site (MP5) is likely to attract opposition from local Ward Members and residents. Following the Issues & Options consultation, a request was received from the Council's Community Services and Environment Scrutiny Panel to consider revoking the "dormant" mineral permission (EB233). A report to the Scrutiny Panel in August 2013⁴⁵ explained the procedure for revoking a planning permission. Officers cautioned against taking such a step for a number of reasons and the Scrutiny Panel agreed to defer further consideration of this issue until the SAD is further advanced.

A representation from St. Modwen in relation to their site Land at Yorks Bridge (MXP4) expressed a preference for alternative types of development and was followed by the submission of further information in support of a housing and/ or employment and open space development on the site. This included a mineral assessment by Alliance Planning stating that coal and clay extraction is not economically viable. On the other hand, the identification of an AOS for coal and clay extraction at Yorks Bridge was supported in principle by the Coal Authority and by CoalPro, and Wyrley Estate expressed a preference for Option 4c.

The Council followed this up by contacting CoalPro and CoalPro members active in the Midlands at the end of 2013, to establish whether there was any current interest in working the coal resources in Walsall. The organisations contacted included agents acting on behalf of UK Coal, who were believed to have retained an interest in the Yorks Bridge prospecting area identified by the former British Coal. Responses received confirmed that UK Coal has no intention in pursuing the site at Yorks Bridge and that no other CoalPro members have any intention of bringing forward a surface coal extraction scheme in Walsall at present.

As a result of the SAD Issues and Options consultation and responses received, as well as subsequent stakeholder engagement, the Council has sought to identify a single AOS for fireclay in line with the Core Strategy. Nevertheless, the Council is sceptical about the viability and deliverability of a coal and fireclay extraction scheme in the Yorks Bridge area within the plan period (including the two potential site allocations identified) and has therefore asked for this to be tested through this study. The results of this are presented below.

8.4 Review Findings

The potential area of search for coal and fireclay as well as the two potential site allocations have each been assessed in terms of their viability and deliverability. The results of that assessment are summarised below, whilst completed assessment proformas and supporting figures are attached in **Appendix A**. The potential AOS and site allocations have been grouped in accordance with the seven SAD Minerals Site and Area Options groupings identified by the Council and outlined in Table 4.2. The Site and Area Options grouping relevant to coal and fireclay is G: Yorks Bridge & Brownhills Area Option.

MXA4(c): Yorks Bridge, Brownhills Potential Area of Search

The potential AOS is located in the northern part of the Borough on land to the north of the A4124 Wolverhampton Road and to the south-west of the A452 Chester Road, off Engine Lane/Pelsall Road in Brownhills (see **Figure A7**). The area falls within an identified area of search in the BCCS (Policy MIN3) as well as covering sites which have been put forward in response to the SAD Issues and Options consultation.

As well as identifying an AOS for fireclay extraction at Yorks Bridge (MXA4) in the SAD Issues and Options Report reflecting that in the BCCS, the Council identified three alternative options for the boundary of the AOS. Options MXA4(a) and MXA4(b) were based on areas put forward by landowners and/or operators during the preparation and examination of the Core Strategy, whilst the third option, the Council's current emerging Preferred Option, covers the maximum extent of these areas as well as two potential mineral extraction sites – Brownhills Common (MXP7 (MP5)) and Land at Yorks Bridge (MXP4). The former is a site subject to a 'dormant' old mineral permission for clay and coal extraction, the latter as a 'Call for Sites'

⁴⁵ See: Report to Walsall Council Community Services and Environment Scrutiny Panel 27.08.13: Brownhills Common – Mineral Permission EB233.

submission in 2011 (CFS27) for a proposed variety of land uses including mineral extraction although with a preference for housing. As noted above, the resource area itself extends beyond Walsall's administrative boundary into Cannock Chase District.

The AOS covers a large area of open land lying immediately north and west of the Wyrley & Essington Canal and Pelsall Road (A4124), extending westwards beyond the borough boundary into Staffordshire. It is characterised by mainly arable fields enclosed by hedgerows, with areas of woodland, grassland and heathland adjacent to the canal and to the east, some of which forms part of an extensive area of common land extending northwards into Staffordshire which is used for information recreation and is managed as a nature reserve. Brownhills Common is part of an important area of lowland heathland which extends beyond the borough boundary into parts of Staffordshire. The part of Brownhills Common to the north of the A452 was designated a SSSI in 2010, whilst the area to the south of A452 which includes the potential site allocation is designated a SINC – Brownhills Common and The Slough. Furthermore, those parts of the Yorks Bridge area adjacent to Cannock Chase are close to the Cannock Extension Canal, which has been designated a SAC⁴⁶.

As well as the significant environmental constraints on the AOS, other potential constraints to the viability and deliverability of new mineral extraction in this AOS are numerous and include:

- ▶ Proximity to housing – there is housing on the opposite side of the Wyrley & Essington Canal (Swallow Close, Mallard Close, Badgers Close, Moat Farm Way and Primrose Close), which forms the southern boundary of the Proposed AOS and Land at Yorks Bridge site (MXP4). There is also housing on the opposite side of Pelsall Road (A4124). Boundaries of some properties are less than 20 m away;
- ▶ Proximity to commercial properties – in particular, industrial properties at Coppice Side Industrial Estate and Apex Road, including the Walsall Council Environmental Depot;
- ▶ Land ownership / difficulty of land assembly – while majority of land within the proposed AOS is believed to be owned by Wyrley Estate, the Land at Yorks Bridge (MXP4) is owned by St. Modwen who, given their preference for other uses on this site, are likely to be opposed to mineral extraction on other land within the AOS;
- ▶ Impacts on agricultural land and holdings – some of the agricultural land is classified as Grade 2 and 3a according to the current Agricultural Land Classification and as such, potential impacts on 'best and most versatile agricultural land' would have to be evaluated;
- ▶ Legacy of historic mining and quarrying, therefore potential for ground problems which would have to be addressed in a new surface working scheme – evidence from old OS maps reviewed in the Council offices show that parts of the proposed AOS, in particular 'The Slough' area and the northern edge of the Land at Yorks Bridge site (MXP4) as well as areas on the western and northern fringes of the Brownhills Common 'dormant' site (MP5/ MXP7), have been mined for coal in the past;
- ▶ Impacts on air quality – an AQMA for NO₂ covers the whole of Walsall borough. Statutory limit values for NO₂ are already being exceeded in sections of the A461 and A5 corridors, which may form part of the haulage routes used to transport clay and coal from the proposed AOS to potential end users in Walsall Borough and neighbouring areas;
- ▶ Access constraints / impacts on highway capacity – there are no obvious vehicular access points to this area, as such a new access is likely to be required onto the A4124 or A452 to serve a new extraction site within the proposed AOS. However, much of the A4124 frontage relates to the Land at Yorks Bridge site (MXP4) and is in the ownership of St. Modwen. Haulage via the A461 (if proposed) could also be problematical as this is a congested route, where junction improvements are proposed, which would not have been designed to accommodate a new mineral extraction site in the AOS. Potential difficulties/ costs of providing access and further improvements to the junctions (if required) may impact on viability;

⁴⁶ SAC – Special Area of Conservation

- ▶ Impacts on Public Rights of Way (PROWs) – there are four Definitive PROWs running across the Brownhills Common ‘dormant’ site (MP5/ MXP7)) which would have to be diverted to maintain public access if working is proposed in this area;
- ▶ Profitability compared to alternatives – for example, the Land at Yorks Bridge site (MXP4) is now being promoted for alternative uses such as housing and/ or employment through the Call for Sites (CFS27);
- ▶ Impacts on flood risk / hydrology – the AOS includes wetland habitats such as The Slough west of Coppice Side Industrial Estate and parts of Brownhills Common which are identified by the Environment Agency as being at high / medium risk of surface water flooding during extreme rainfall events;
- ▶ Impacts on biological and geological conservation – this is an area of significant importance for biodiversity and includes a significant part of the Brownhills Common and The Slough SINC. The AOS also adjoins several other designated sites, including the Clayhanger and Chasewater and Southern Staffordshire Coalfield Heaths SSSIs, which could be affected by mineral working. The AOS is also near to the Cannock Extension Canal SAC/ SSSI which could be indirectly affected;
- ▶ Impacts on local landscape character – the AOS forms part of an open landscape extending across the boundary into Staffordshire. There are surviving elements of the historic field pattern in the western areas of the AOS, whilst other parts of the area such as The Slough and Brownhills Common are characterised by areas of woodland, wetland and heathland which have in part regenerated following previous mining and industrial activity; and
- ▶ Potential impacts on archaeology – Walsall & Wolverhampton HER records several sites in and around the area (mainly connected with previous mining and industry); evaluation would be required to determine potential.

A further constraint is in relation to the actual extraction of the fireclay itself. Given that the fireclay resources in the Borough only occur beneath coal seams, it is unlikely to be feasible to extract the fireclay without extracting the coal. The two minerals would therefore have to be worked together using opencast/surface mining methods which are likely to have very significant environmental effects and could cause indirect harm to the numerous environmental designations in the area.

A significant proportion of the potential AOS and the surrounding areas of Walsall and Cannock Chase District in Staffordshire are subject to environmental designations, including a SAC (also designated as SSSI), two other SSSIs, two SINCS (one covering part of the AOS) and a SLINC, covering a range of nationally and locally important lowland heathland, wetland and grassland habitats linked by wildlife corridors such as that provided by the Wyrley & Essington Canal. Potential adverse effects on these areas could be a significant constraint to working the fireclay resources.

Proposals would have to be supported by ecological and hydrological assessments (and by a Habitats Regulations Assessment focusing on the potential effects on the SAC), to identify the most effective working strategy and strategy for restoration, so as to minimise environmental damage and loss of habitats and maximise opportunities for habitat recreation through restoration. Measures would also be required to prevent potential adverse effects from quarrying operations (e.g. from noise, dust and traffic), to retain or replace valuable habitats present within the site, and to maintain important linkages between habitats.

As well as these constraints, and as demonstrated by the responses received to the SAD Issues and Options Report, there is known local opposition to any future mineral extraction on Brownhills Common or in the surrounding area. As such, the viability and deliverability of any potential future coal and fireclay extraction in the AOS will in part be dependent on how any likely habitat loss and any hydrological impacts can be appropriately mitigated as well as the willingness of landowners and/or minerals operators to bring forward mineral extraction proposals.

MXP4: Land at Yorks Bridge Potential Site Allocation

The potential site is located off Pelsall Road (A4124), in the Brownhills area of the Borough (see **Figure A7**). Located within the Green Belt, the site is considered by the Council to potentially lie within a proposed area

of search as identified by the BCCS (Policy MIN3 and shown indicatively on Minerals Key Diagram) as well as a Coal Authority surface coal resource area. It is part of an area of agricultural land lying immediately to the north and west of the Wyrley & Essington Canal and Pelsall Road (A4124), extending westwards beyond the borough boundary into Staffordshire. The site is characterised by mainly arable fields enclosed by hedgerows, with a small woodland area fringing the eastern boundary adjacent to the A4124.

The site has been promoted by the landowner (St Modwen) with a preference for housing development in response to the Call for Sites Submission in 2011 although it has been acknowledged that there was a potential for mineral resources. Further supporting information was submitted by the landowner in December 2013 including a minerals assessment by consultants Alliance Planning, which concluded that mineral extraction is not economically viable in that the site is too small and constrained. The assessment did not however consider the potential for further land assembly, or that development of the site with other uses could compromise bringing forward a clay and coal extraction proposal elsewhere within the proposed Yorks Bridge and Brownhills AOS (MXA4(c)).

In addition to the significant environmental constraints, other potential constraints to the viability and deliverability of mineral extraction at the site include highway capacity and congestion in the A461 and A5 corridors which has contributed to air quality issues as noted above in relation to the wider AOS. In addition, planned highway improvements within the A461 Walsall corridor (including junction improvements) to improve capacity, reduce congestion and minimise transport emissions will not have been designed to accommodate additional HGV movements likely to be generated from new opencast clay and coal site and/or strategic clay stockpiling site in the Yorks Bridge/Brownhills Common area.

The various constraints to potential extraction at this potential site allocation have previously been outlined in relation to the potential Yorks Bridge/Brownhills Common AOS above. As such, the key constraints to the viability and deliverability of potential mineral extraction at this site are likely to be whether the landowner is willing to consider mineral extraction as opposed to other alternative land use such as development with more profitable land uses with potential for shorter-term gains such as housing.

MXP7: Brownhills Common Potential Site Allocation ('Dormant' Site)

This potential site is subject to a 'dormant' mineral permission and is located off Coppice Lane in the Brownhills area of the Borough (see **Figure A7**). Located within the Green Belt, the site falls within a proposed area of search as identified by the BCCS (Policy MIN3) as well as a Coal Authority surface coal resource area. Furthermore, the site is subject to an unimplemented 'dormant' planning permission for mineral extraction (EB233) from 1954, which also covers the Birch Coppice site (MP3) previously worked in the 1950s (see Table 3.1). The 'dormant' permission at Brownhills Common could be activated at any time, subject to the approval of a suitable schedule of modern working conditions.⁴⁷

The site forms part of an extensive area of open land extending northwards into neighbouring parts of Cannock Chase District and Lichfield District in Staffordshire. It lies to the south of the A452 Chester Road/Chester Road North and comprises areas of woodland and open space, which are used for informal recreation and are managed as a nature reserve. Brownhills Common is part of an important area of lowland heathland which extends beyond the borough boundary into parts of Staffordshire. The part of Brownhills Common to the north of the A452 (outside the permitted mineral site area) was designated a SSSI in 2010, whilst the area to the south of A452 which includes the potential site allocation is designated a SINCC – Brownhills Common and The Slough.

The site is being promoted by the landowner Wyrley Estates and Potters Clay & Coal Company Ltd; the latter being the only known interested party in the fireclay resources of the area, who use it to manufacture pot clay blends.⁴⁸ Their main source of supply is currently a stockpile of extracted fireclay extracted from the

⁴⁷ An application for conditions to be applied to both sites was submitted to Walsall Council in 1997 (BC48813P). This was initially held in abeyance pending the transposition of the EIA Directive and a decision on the 'Wensley Quarries' case, which in 1999 established the principle that ROMP applications are subject to the Directive. The Council's decision following this is unclear, but it may have been "deemed refused" in the absence of an environmental statement.

⁴⁸ The company's head office is based in Etruria, Stoke-on-Trent and trades as Potclays Ltd. It supplies pot clays and related products to schools, colleges and hobby/ artisan potters. For further details see website: http://www.potclays.com/Home_1.asp

former Birch Coppice site (MP3)⁴⁹, which as noted above is covered by the same 'dormant' old mineral permission as the potential site allocation. Extracted clay is currently being stockpiled on part of the permitted area of this site, to the north-east of their Swan Works factory, off Pelsall Road, where only limited stockpiled reserves remain.

The various constraints to potential extraction at this potential site allocation have been outlined in detail in relation to the potential Yorks Bridge/Brownhills Common AOS above, not least the significant environmental constraints. As such, the key constraints to the viability and deliverability of potential mineral extraction at this site are considered to be whether there is a willingness by the landowner and/or minerals industry to bring forward a mineral extraction proposal at the site whilst seeking to ensure appropriate mitigation measures are incorporated into such proposals to address potential impacts on the various statutory environmental designations, local communities and businesses, as well as the local highway and canal network.

8.5 Strategic Stockpiling of Fireclay

A key consideration for the SAD & AAP Minerals Project in terms of fireclay, because of the method of working (i.e. normally relatively rapid opencast extraction of both clay and coal, followed by restoration of the whole site within a relatively short timescale) is the potential for strategic stockpiling of fireclay following extraction, and the feasibility of identifying a potentially suitable location for such a facility in the SAD.

Policy MIN3 of the BCCS enables strategic stockpiling, i.e. to allow fireclay extracted as part of opencast coal working to be stockpiled at a suitable location in order to provide a long term source to supply brickworks in Walsall and neighbouring areas. The policy was included in the Core Strategy to reflect the issues raised by the brick and ceramics industry during the preparation of the plan. Two potential options have been identified by the Council as potential locations for a strategic stockpile of fireclay in Walsall and the viability and delivery of a strategic stockpile in these locations is considered below:

- ▶ Option A: Former Birch Coppice Site (MP3) – fireclay is currently being stocked on part of this site in breach of the current planning permissions for site restoration; and
- ▶ Option B: Yorks Bridge Potential AOS (MXP4 (c)) – identified in the Core Strategy as a potential location for fireclay working and also identified as a potential fireclay working option in Section 8.4 above.

The only current fireclay stockpile in Walsall is on part of the former Birch Coppice site (MP3) which is covered by the same old mineral permission as the potential site allocation MXP7 at Brownhills Common (EB233). As noted above, the Birch Coppice site was working in the 1950s by the Potters Clay & Coal Company Ltd to produce clay which is used in the manufacture of pot clay blends at the Swan Works, located off Pelsall Road.

Approximately a third of the Birch Coppice site, immediately to the north of Swan Works, is still being used as a clay stocking area. This stocking area is preventing the holistic restoration of the site, the permission for which required the removal of the stockpile and final restoration phase to have been completed in 2004. Furthermore, recent discussions between the Council and local land owners suggest that the part of the Birch Coppice site being used for clay stockpiling may not actually be owned by Potters Clay & Coal Company Ltd. In addition, it is understood that there has been some interest in developing outdoor recreational uses on part of the Birch Coppice site, although no planning applications have been received for such uses to date. All these various factors, in conjunction with the proximity of the current stockpiling area to existing housing, means that the continued long term use of the Birch Coppice site for clay stockpiling and any potential expansion of that use is unlikely to be acceptable.

The only other area which has been identified by the Council as having any potential for strategic stockpiling is the Yorks Bridge / Brownhills area of search (MXA4c) and the potential site allocations that fall within it, in the event that coal and fireclay working in the area prove to be feasible. However, as discussed in Section 8.4 above, the significant environmental and nature conservation constraints as well as the

⁴⁹ As set out in the evidence provided to Walsall Council officers in 2007 during the preparation of the Black Country Core Strategy

highway network constraints in hauling stockpiled material to the existing brickworks, means that the prospect of any such extraction is very unlikely. Given that it is not possible to identify suitable locations for strategic stockpiling of fireclay to provide long term sources of supply to brickworks or Swan Works, the Council is recommended to rely on Policy MIN3 of the BCCS.

8.6 Conclusions

Options for Fireclay Extraction

The review of the potential areas of search and site allocations for fireclay has taken into account the AOS identified in the BCCS which has been further refined by the Council as a consequence of site allocation proposals received in response to the Call for Sites and SAD Issues and Options consultations. No further options for fireclay extraction have been identified in this study.

The AOS as well as the potential site allocations themselves are all **significantly** constrained not least by the nature conservation value of the area and the various environmental corridors and networks including the internationally recognised Cannock Extension Canal SAC/ SSSI, the Chasewater and Southern Staffordshire Heaths and Clayhanger SSSIs, and Brownhills Common and The Slough and Pelsall North Common SINCS and the Wyrley & Essington Canal SLINC. Any potential fireclay extraction, which can only realistically be extracted in conjunction with the overlaying coal using an opencast coal and clay extraction scheme, is likely to have significant adverse environmental effects as it would result in loss of some important designated habitats of local and sub-national importance, and has the potential to cause direct or indirect harm to other habitats of local, national and European importance outside the potential mineral working areas.

In light of the limited demand for fireclay within Walsall and subject to seeking appropriate legal opinion, due consideration may need to be given to the permanent revocation of the dormant permission at Brownhills Common should a viable proposal for fireclay extraction come forward elsewhere within the wider Yorks Bridge/ Brownhills area. If an opencast coal and clay extraction proposal is pursued on any site in this area, this is very likely to be subject to restoration of the land to an equivalent habitat quality and an appropriate nature conservation/ recreational end use in accordance with Policy MIN4 of the BCCS.

The only party to have expressed an interest in the fireclay resources in Brownhills area is the Potters Clay & Coal Company Ltd. Although test firing has apparently taken place, the results are not known and there is no evidence to suggest that the fireclay would meet the requirements of any brick manufacturers in Walsall or the surrounding areas. Furthermore, it is understood that the brickworks in Walsall are currently importing fireclay from various sources in the East and West Midlands. Whilst consumption rates vary, it would appear the Sandown Brickworks uses more fireclay and other buff clays than the other two factories.

The Swan Works currently relies on the remaining stockpile of fireclay extracted from the former Birch Coppice site, adjacent to the factory, although these reserves are now limited. At the BCCS Examination however, the agent for Swan Works stated that the annual supply requirement for fireclay was only around 2,000 tonnes per annum. This is a relatively low amount and arguably this requirement could be met from imports without having significant cross-boundary effects, and the Council has confirmed there are no current planning restrictions to prevent the clay from being imported to this factory. As is noted above, the environmental impact of opencast clay and coal working in the Yorks Bridge and Brownhills Common area – on both sides of the boundary – would be very significant, and is likely to have greater environmental impacts than the factory becoming 100% reliant on imports.

Consultation and engagement with the coal industry by both the Council following the SAD Issues and Options consultation and Amec Foster Wheeler as part of this SAD & AAP Minerals Project, has established that there is currently no interest by the industry to bring forward any new coal extraction sites nationally. As such, the prospect of a potential site coming forward in a significantly constrained area such as Brownhills during the plan period is considered remote. It therefore follows that there is no prospect of fireclay being worked in this area, in that it is only generally economically feasible to extract fireclay as part of an opencast coal extraction scheme.

Thus, it is concluded that there is no basis for identifying an Area of Search for fireclay in the SAD. **The recommended preferred option for the SAD is therefore to rely on Core Strategy Policies MIN3 and MIN4 as enabling policies for fireclay extraction, rather than to specifically identify an Area of Search,**

although it would be appropriate to identify the permitted site at Brownhills Common if this is still an extant 'dormant' planning permission at the time the SAD is adopted.

Options for Strategic Stockpiling

In terms of the potential strategic stockpiling of fireclay, this study has concluded that the continued long term use of the Birch Coppice site for clay stockpiling and any potential expansion of that use is unlikely to be acceptable, not only given the proximity to existing housing but also given the significant environmental and nature conservation constraints of the area. As such, **the recommended preferred option for the SAD is to continue to rely on Policy MIN3 of the BCCS as an enabling policy, in that the evidence does not support the allocation of either of the potential options identified by the Council for this purpose.**

9 Potential for ‘Unconventional Hydrocarbons’: Coal Bed Methane and Shale Gas

9.1 Introduction

This section provides an overview of the coal bed methane and shale gas resources in the Walsall area as part of providing a complete overview of the main mineral resources in the Council area as part of the evidence base for the SAD and AAP. In particular, this section seeks to establish the likelihood of viable proposals coming forward for the extraction of coal bed methane and/or shale gas.

9.2 Methodology and Approach

As well as providing an overview of the coal bed methane and shale gas mineral resources in the Walsall area, as part of the SAD & AAP Minerals Project, Amec Foster Wheeler has sought to establish the likelihood of viable proposals coming forward for the extraction of coal bed methane and/or shale gas. Due consideration has been given to the both publicly available information from sources such as the British Geological Survey (BGS) and Coal Authority, as well as information provided by the Council and has included information contained in the BCCS and its supporting background documents, the Council's latest available Annual Monitoring Report (AMR), and the latest available information from DECC with regards to the Petroleum Act 1998: Onshore Licensing Maps. Where appropriate, this information has been supplemented by Amec Foster Wheeler's own investigations.

9.3 Background / Context

Energy Minerals – Review of Core Strategy Baseline Evidence

There are extensive coal deposits (Upper and Lower Coal Measures) underlying Walsall Council's administrative area, many of which have been subject to historic working for both surface and deep mined coal⁵⁰. These resources form part of the South Staffordshire Coalfield which straddles the boundary between Walsall and the rest of the Black Country, and the adjoining parts of Staffordshire⁵¹.

The extent of the coal mining surface resource areas (otherwise known as shallow coal, which is defined as coal deposits with overburden of less than 50 m depth) are shown in **Figure 3.1**. These are identified as Exposed Productive Coal Measures on the 1999 BGS Mineral Resource Map, which also indicates the broad extent of Concealed Productive Coal Measures underlying the eastern third of the Borough. However, the resource mapping indicates that the latter deposits are at significant depth and are overlain by extensive deposits of other minerals of 'local and national importance', in particular clays from the Etruria, Keele and Enville Formations and sandstones from the Kidderminster Formation (Sherwood Sandstone Group), as described in Sections 6 to 8 of this report. As well as containing other minerals such as ironstone, limestone and clays including fireclay, the coal deposits in the Council area are also a potential source for 'unconventional hydrocarbons', in particular coal bed methane and/or shale gas.

Although there are at present no national or local requirements for the production of coal, paragraph 147 of the NPPF requires minerals planning authorities to identify areas where coal extraction may be acceptable, encourage capture and use of methane from active or abandoned coal mines, and provide for coal

⁵⁰ See Pages 14-15 of "Mineral Resource Information for Development Plans: West Midlands Resources and Constraints (Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton)" and accompanying Mineral Resource Map (1999), British Geological Survey. See also Section 4 (in particular, 4.35-4.39) of and Figures 2 and 3 of "Black Country Joint Core Strategy Minerals Study 2008" by RPS, and Coal Authority Interactive Map Viewer, available online, showing the extent of previous surface and deep mining activity.

⁵¹ See Section 3.11 and Figure 8, "Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council" (2006), British Geological Survey

producers to extract and if necessary stockpile fireclay for future use. Policy MIN4 of the BCCS supports the potential exploitation of coal bed methane only if a Petroleum Exploration Development Licence (PEDL) is issued in the Black Country area.

Information published following the adoption of the Core Strategy suggests that many parts of England could have potential for 'unconventional hydrocarbons' such as shale gas and coal bed methane⁵². However, more detailed research by the BGS indicates that with regard to coal bed methane, the deposits in the South Staffordshire Coalfield have relatively low methane content, suggesting limited potential for exploitation compared to other coalfields where higher methane content is found; Walsall is not included in the areas identified as having 'good coalbed methane potential'⁵³. With regard to shale gas, research indicates that mineral deposits in other parts of the UK, such as the Bowland Shale (Pennine Basin) and Kimmeridge Shale (Weald Basin), have much greater potential than the Carboniferous coal bearing deposits in the West Midlands, and suggests that these areas are more likely to be the focus for oil and gas exploration during the plan period⁵⁴.

A similar conclusion has been drawn by Staffordshire County Council and Stoke-on-Trent City Council in their review of evidence for the Staffordshire and Stoke-on-Trent Minerals Local Plan. While interest in coalbed methane exploitation in north Staffordshire is noted, the potential for exploration for oil and gas is considered to be greater in other areas⁵⁵.

In the light of this evidence, the study has reviewed the likely potential for 'unconventional hydrocarbon' exploration in Walsall over the plan period, to establish whether there is a need for further policies or allocations in the SAD.

Potential for Extraction of Energy Minerals – Development of Options

As noted above, Policy MIN4 of the Core Strategy is an "enabling" policy for extraction of coal and coal bed methane extraction but does not identify any specific sites or locations for this purpose, as no coal extraction proposals were planned at the time the Core Strategy was prepared, and there were no PEDLs in place.

No options were identified for coal extraction, other than for possible coal and fireclay working in the proposed Yorks Bridge Area of Search (see Section 8 of this report for details). However, Section 8.3 above indicates that no interest has been expressed by the coal industry in coal extraction during the SAD Issues & Options consultation in 2013 or subsequently, nor has the Council received any enquiries or planning applications relating to surface coal working.

At the time this report was commissioned, the latest map published by DECC (November 2014) showed that there were still no PEDLs in place for any of the OS grid squares covering Walsall Borough, although the latest (14th) licensing round for onshore PEDLs had just closed, and it was unclear whether any bids had been received for oil and gas exploration in the Walsall area.

9.4 Review Findings

As shown in Figure 3.1, the coal mining surface resource areas defined by the Coal Authority underlie the entirety of the eastern two-thirds of Walsall and as identified above, the 1999 BGS mineral resource map shows that the remaining areas of Walsall to the east are underlain by 'concealed' Coal Measures which lie at considerable depth beneath other mineral deposits. Any oil and gas company wanting to prospect for

⁵² See: Minerals Planning Factsheet : Alternative Fossil Fuels (October 2011), British Geological Survey and "Developing Onshore Shale Gas and Oil – Facts about "Fracking"" (December 2013), DECC

⁵³ See: Chapter 2, pages 8 10, and Chapter 10, pages 31 - 32, in particular, Figure 29, "The Unconventional Hydrocarbon Resources of Britain's Onshore Basins – Coalbed Methane (CBM)" (2012), British Geological Survey

⁵⁴ See: Chapter 4, "The Unconventional Hydrocarbon Resources of Britain's Onshore Basins – Shale Gas" (2012), British Geological Survey and "Developing Onshore Shale Gas and Oil – Facts about "Fracking"" (December 2013), DECC.

⁵⁵ See Chapter 4, "The New Minerals Local Plan for Staffordshire 2015 to 2030: Consultation Document (April 2014), Staffordshire County Council and Stoke-on-Trent City Council.

coalbed methane and/or shale gas can only do so with a PEDL. There are no PEDLs currently in place for any OS grid squares covering Walsall Borough, nor has any interest been expressed by the oil and gas industry in the latest round of consultations⁵⁶ regarding the Petroleum Act 1998 Onshore Licensing Maps within the Walsall area. As such, it has not been possible to identify any areas within the Borough that may have potential for coal extraction, coal bed methane and/or shale gas at the present time.

It may nevertheless be possible that the 'prior extraction' of coal, coal bed methane and/or shale gas could take place from within the urban area at some point during the plan period, although it has not been possible to identify such opportunities at this stage. The feasibility of 'prior extraction' can only be determined through detailed site investigations, which may only become available at the planning application stage. As such, it is recommended that the SAD and AAP include a criteria based policy in relation to 'prior extraction' (see also Section 10 of this report).

9.5 Conclusions

The review of coal resources has not been able to identify any areas which may have potential for the extraction of surface coal, other than the Yorks Bridge/ Brownhills Common areas evaluated in Section 8 of this report, although there appears to be no current interest in extracting the coal in these areas at the present time.

The review has also not identified any realistic potential for exploration for 'unconventional hydrocarbons' (i.e. coal bed methane and shale gas) in Walsall over the lifetime of the plan. As well as there being no current PEDLs in the Walsall area, no further interest has been expressed by the oil and gas industry either directly to the Council or as a result of the latest Petroleum Act 1998 Onshore Licensing Maps consultations. Given that oil and gas companies cannot prospect without a PEDL, it is considered that the likelihood of oil and gas proposals coming forward in Walsall during the plan period is remote and as such there is no justification for any further guidance in the SAD.

The recommended preferred option for the SAD is therefore to rely on Policy MIN4 of the BCCS to guide any energy mineral proposals that may come forward over the lifetime of the plan. Pending the Core Strategy review this should be sufficient.

⁵⁶ PEDL 14th Landward Licensing Round closed in October 2014 – i.e. an invitation by Government for the oil and gas industry to bid for prospecting in specific OS grid square areas. Successful bidders will be granted a PEDL enabling them to prospect for oil and gas and to extract any oil and gas present in the licensed area, subject to obtaining other permissions, including planning permission for any operational development.

10 Potential for Prior Extraction

10.1 Introduction

This section considers the potential for prior extraction of minerals in advance of development.

10.2 Methodology and Approach

Amec Foster Wheeler has undertaken a thorough review of the Council's approach towards prior extraction of minerals in advance of development against the national and regional minerals planning context which has been set out in Section 2 of this report. In undertaking this review, due consideration has been given to the four key issues identified in the SAD Issues and Options Report, namely:

- ▶ Mineral Safeguarding Area (MSA);
- ▶ Safeguarding mineral infrastructure;
- ▶ Meeting mineral supply requirements; and
- ▶ Managing the impacts of mineral development.

Furthermore, due consideration has also been given to any comments received in response to the Issues and Options consultation in relation to the issues identified as well as annual monitoring data collected by the Council and the findings of the SAD & AAP Waste Project, notably the Mining and Industrial Legacy Constraints Report.

10.3 Background / Context

Minerals Safeguarding – Review of Core Strategy Baseline Evidence

In accordance with current national guidance (NPPF paragraph 143), the Core Strategy identifies the broad extent of a minerals safeguarding area (MSA) in the Black Country on the Minerals Key Diagram. However, this area has not been included on the Proposals Map for Walsall and is to be defined in detail through the SAD and Town Centre AAP. The development of options for refining the MSA boundary in Walsall is discussed in Section 3.4 of this report.

As well as informing the development of the MSA, the evidence gathered for the Core Strategy included consideration of the potential for 'prior extraction' of minerals in the Black Country. Section 2.2 of the 'Minerals Background Paper 2' (2010) prepared by the Black Country Authorities was able to identify very few examples of 'prior extraction' of coal in the Black Country, and only one documented example in Walsall was identified: the former Reedswood Power Station, which was subject to an extensive remediation scheme in the late 1980s. Further information has been provided by the Council on this scheme which is summarised below. Since 2012 the Coal Authority has been publishing examples of "Prior Extraction Opportunities" which include applications in Walsall, but in none of these cases was 'prior extraction' considered feasible.

Published case studies of 'prior extraction' schemes are few and far between⁵⁷ and do not reflect the situation in the urban areas of Walsall, where mineral resources tend to be overlain by a significant depth of 'made ground', meaning that even if they were close to the surface at one time, they are not now. Most of the sites proposed for development in Walsall are relatively small brownfield sites, near or adjacent to other urban development. The existence of neighbouring development, together with the types of remediation

⁵⁷ See Case Studies in Chapter 10, "Mineral Safeguarding in England: Good Practice Advice (2011), British Geological Survey and Coal Authority and in "Prior Extraction of Coal Resources during Development Activity" (2013), Coal Authority and CoalPro.

solutions chosen on sites affected by industrial and mining legacy, would normally preclude further mineral extraction on any scale in advance of redevelopment.

The justification to Core Strategy Policy MIN1 highlights that any mineral resources underlying the urban areas of the Black Country are already sterilised by non-mineral development (paragraph 8.9). In this Walsall is no different to other urban areas in the Midlands, as noted in a 2011 report published by BGS, which estimated that nearly 18% of the surface coal resources in the Midlands Coalfield (an area that does not include Walsall) are already sterilised by urban development⁵⁸.

Allowing urban sites in Walsall to be redeveloped with further non-mineral developments will not make the situation any worse, and indeed it could be argued that other Core Strategy objectives towards regeneration and growth will often outweigh the need to safeguard mineral resources in an area where such resources have already been extensively exploited in the past.

Minerals Safeguarding – Development of Options

The development of options for the MSA and mineral commodity areas is explained in Section 3.4 of this report. No options relating to 'prior extraction' were identified in the SAD and AAP Issues & Options Reports, in that the guidance in Core Strategy Policy MIN1 was considered sufficient. No comments were received on 'prior extraction', although a number of respondents supported the proposals for the MSA; for example, the Coal Authority and CoalPro supported the inclusion of all mineral resources. Comments were also received from Staffordshire County Council and Lichfield District Council who supported the general principle of avoiding development that sterilises mineral resources, and advised that proposals in Walsall should have regard to safeguarding areas in Staffordshire and should not prevent working in these areas. On the other hand, one comment received through social media questioned the appropriateness of allowing opencast coal mining in urban areas, particularly on sites near to schools and residential areas.

10.4 Review Findings

Minerals Safeguarding Area (MSA) and Core Strategy Policy MIN1

Current national policy guidance (NPPF, paragraph 143) requires minerals planning authorities to “*define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development*”; although the NPPF also makes it clear that there is no presumption that the resources included in a safeguarding area will be worked. This principle underpins Policy MIN1 of the BCCS, which together with the associated Minerals Key Diagram identifies the broad extent of a minerals safeguarding area (MSA) covering most of Walsall Borough, and provides the context for decision making in relation to mineral safeguarding and 'prior extraction' in Walsall. As such, it would be appropriate for the SAD and AAP Preferred Options to include appropriate policy wording clarifying that Core Strategy Policy MIN1 will apply to all non-mineral development within the MSA and mineral commodity areas defined in these plans.

The extent of mineral resources in Walsall has been evaluated in this project using the evidence available from the BCCS and the available BGS geological and mineral resource mapping and other sources. As set out in Section 3.4 of this report, due to the limitations of the evidence base, it has not been possible to further refine of the BGS based mineral commodity areas within Walsall. Nevertheless, the inclusion of this information in the SAD and AAP will provide important guidance to developers and to the public on the areas of Walsall where potentially valuable mineral resources can be found, so the potential existence of such resources, and the approach towards safeguarding them, can be considered along with other development constraints at the earliest stage in the design of a new development.

However, the inclusion of a MSA in a local plan is only the first step in the process of minerals safeguarding. Further evaluation can only be done on a site-by-site basis, through a detailed desk-top evaluation and/ or intrusive site investigation. Recent monitoring in Walsall suggests that such investigations are normally only carried out for the purpose of determining the extent of geotechnical problems or contamination, rather than

⁵⁸ See “Investigating the influence of settlement pattern and morphology on the sterilisation of shallow coal resources”: Report and Appendices (2011), British Geological Survey

to investigate the feasibility of 'prior extraction'. Arguably, it would be unreasonable to require a developer to carry out such an investigation if it is clear that other priorities outweigh the need to safeguard any mineral resources present.

Policy MIN1 recognises that when evaluating a development proposal, due consideration must be given to all of the relevant policy requirements in the local plan, and other factors affecting the development. The feasibility of 'prior extraction' is therefore only one of many considerations to take into account. There will often be competing and conflicting priorities, meaning that difficult choices have to be made. It has to be recognised that in an urban area such as Walsall, other local plan priorities – such as meeting the Core Strategy requirements for housing, employment and town centre development – will often outweigh the importance of extracting of any minerals that may present within a particular site. Policy MIN1 also acknowledges that a 'prior extraction' scheme could have harmful effects on the environment and amenity of neighbouring uses, which is considered in further detail under the sub-section entitled 'Managing the Impacts of Mineral Development' below.

When these factors are taken into account, the assumption in Policy MIN1 that prior extraction is only likely to be feasible in practice in a very large urban development project, where significant land remediation is required, seems reasonable.

It is considered that any proposals for prior extraction would need to be evaluated against all relevant local plan policies in the development plan, which would include Policy MIN1 of the Core Strategy. As such, it would be appropriate for the SAD Preferred Options to include appropriate policy wording clarifying that Core Strategy Policy MIN1 will apply in relation to prior extraction.

Indeed, the evidence gathered for the BCCS has indicated that the potential for prior extraction of minerals is extremely limited in the Black Country, particularly in urban areas where many brownfield sites are relatively small, tend to be overlain by a significant layer of 'made ground', and are affected by mining and industry legacy, as is the case in Walsall. As such, Policy MIN1 only requires developers to demonstrate they have considered prior extraction of sites of 5 hectares or more in urban areas and on sites of 0.5 hectares or more in the Green Belt.

Although prior extraction is promoted by the Coal Authority and to an extent by the MPA, we would not disagree with the Council's view that other factors need to be taken into account when evaluating the feasibility of 'prior extraction' and that as a general rule, it is rarely likely to be feasible or economically viable even when there are no major ground condition issues. The potential for 'prior extraction' of different mineral types is considered further under the sub-section entitled 'Meeting Mineral Supply Requirements' below.

Safeguarding Mineral Infrastructure

The issue of safeguarding mineral infrastructure is not considered relevant with regard to prior extraction.

Meeting Mineral Supply Requirements

Prior extraction is potentially applicable to all mineral resources in Walsall. The sections below consider the potential for 'prior extraction' of individual mineral types.

Sand and Gravel

National policy guidance requires minerals planning authorities to "*plan for a steady and adequate supply of aggregates*" (NPPF paragraph 145). However, it is clear from the analysis in Sections 5 and 6 of this report that the scope for producing aggregates from primary, secondary and recycled sources in Walsall is limited; this is not expected to change significantly over the plan period even if areas of search are identified, as recommended. The study has therefore considered the extent to which 'prior extraction' could contribute towards future supplies.

Prior extraction can occur as part of site redevelopment work, enabling the extraction of mineral resources which would otherwise not normally be able to be extracted. Key factors which determine whether or not prior extraction is feasible include: environmental constraints and size of the site to be redeveloped. This most notably affects the economic viability of any prior extraction scheme. In urban areas such as Walsall,

redevelopment sites by their nature are often limited in size. The lack of demonstrable case studies both in Walsall and the wide area is indicative of the fact that prior extraction is not often feasible.

Current good practice guidance on mineral safeguarding includes two documented examples of where 'prior extraction' of sand and gravel has happened or has been required under a planning condition⁵⁹, suggesting that where the circumstances allow, this may be feasible in Walsall.

Where it is feasible, 'prior extraction' could provide a source of sand and conglomerate for use on-site or for sale, which may help offset the costs of individual development projects, or the cost of having to source these raw materials from elsewhere. However, while the lack of local evidence means it is impossible to quantify how much sand and gravel could be generated through 'prior extraction' in Walsall over the plan period, it is unlikely to be a significant source of supply.

Brick Clay

National policy in the NPPF stipulates that a 25 year landbank for brick making clay should be maintained for each new or existing brick-manufacturing plant (NPPF paragraph 146). Making provision for supplies of locally produced clays to local brickworks and providing for stockpiling and importation of materials where this is essential will support the Plan's vision.

However, not all of the clay resources in the Black Country are likely to be of sufficient quality for use in brick making and some are affected by significant environmental constraints. BCCS Policy MIN3 also makes a commitment to maintain supplies of brick clays to the Borough's three brickworks for as long as possible and aims to provide a 25 year supply to each works where feasible. The only brick clay that is currently being extracted in the Black Country is Etruria Marl, which is a nationally scarce resource, and some factories in the Black Country, including Aldridge Brickworks in Walsall, are 100% reliant on imports, as such the policy indicates that a 25 year supply cannot be guaranteed in every case.

As previously discussed in Section 7 of this report, this study has identified that there are likely to be sufficient resources within the proposed Stubbers Green Area of Search (MXA3) to provide a 25-year supply of Etruria Marl to the Aldridge and Atlas Brickworks. In addition, the study seeks to recommend that an additional area of search for brick clay is identified on land to the north of the A461 (MXA9) in order to identify additional resources that could meet the supply requirements for Sandown Brickworks. Over and above this, BCCS Policy MIN1 encourages schemes involving the prior extraction of minerals for use on-site or for use/stockpiling elsewhere for future use (such as brick clays or natural building stone).

With the objective of maximising opportunities to source brick clay locally, it would seem reasonable to favour 'prior extraction' of brick clay outside the proposed areas of search, where it is practical and feasible to do so, particularly where the clay extracted would help supply a brick factory in the Black Country. This section of the report therefore explores the potential for 'prior extraction' of brick clays in Walsall, and how this might contribute towards future supplies.

The feasibility of prior extracting brick clay resources in Walsall in advance of any built development will largely be determined by economic viability to do so, which in turn is dependent on site size. Many of the redevelopment sites in Walsall, in particular in the north eastern part of the Borough where the brick clay resources occur, are likely to be limited in size. Furthermore, there is no documented evidence or examples of the prior extraction of brick clay as part of other developments in Walsall. This combined with the fact that not all of the clay resources in Walsall are likely to be of sufficient quality for use in brick making, and that some are affected by significant environmental constraints, indicates that the prior extraction of brick clay is unlikely to be a significant source of supply.

Coal and Fireclay

Planning for coal provision is guided by national policy (NPPF paragraph 147) which indicates mineral planning authorities should inter alia; provide for coal producers to extract separately, and if necessary stockpile, fireclay so that it remains available for use. This is also a requirement of Core Strategy Policy MIN4. However, extraction of coal is normally carried out using opencast methods, which is likely to

⁵⁹ See Case Studies 11 and 12 in Chapter 10, "Mineral Safeguarding in England: Good Practice Advice (2011), British Geological Survey and Coal Authority and in "Prior Extraction of Coal Resources during Development Activity".

have significant (albeit temporary) impacts on the local environment, and therefore is not favoured unless the proposal is considered environmentally acceptable.

Although there is no national or local policy requirement for the working of coal, given the likelihood of increasing demand for coal in response to increasing concerns over energy security, the BCCS does not rule out the possibility that proposals may come forward within the plan period and as such, an enabling policy is included (Policy MIN4). Furthermore, the SAD Issues and Options Report recognised the possibility that coal extraction could take place in the Brownhills area over the plan period, but that feasibility of prior extraction can only be determined on a site by site basis. Consultation responses to the SAD Issues and Options Report in relation to the impacts of coal extraction have focussed on local and residential amenity and public health as well as land stability and remediation issues.

The only known example of the prior extraction of coal in Walsall was that associated with the remediation of the former Reedswood power station site which involved the complete stripping, i.e. effective opencast working, of a large area of land. The 'prior extraction' of coal (and associated fireclay) is only likely to be feasible in Walsall in the future if other similar projects come forward which involve land remediation over a very large area. At the time this project was carried out no such projects could be identified, although it is possible that they could be over the lifetime of the plan. Furthermore, the Council's analysis of the Coal Authority's *'Prior Extraction Opportunities'* identified in the Black Country in 2012/13 has shown that in none of these cases the Coal Authority actually objected to on the grounds that the development would sterilise coal resources – their main concern centred on mining legacy.

In considering the financial viability of prior extraction in large-scale urban regeneration projects in the future, the Council might consider removing the remnant shallow coal from a site which has previously been subjected to shallow underground mining as a more cost-neutral option, as opposed to deeper mine workings, which can be very costly. However, it is acknowledged that on some sites in Walsall, remediation may have to involve treatment of both types of previous mining operation.

Managing the Impacts of Mineral Development

National minerals policy, particular with regards to coal extraction, stipulates that proposals must be environmentally and socially acceptable (NPPF paragraphs 143, 144, and 149). This is reflected in Policy MIN1 of the BCCS, which states that 'prior extraction' in advance of development may not be considered feasible if it would result in either abnormal costs/ delays which would risk viability; the need for development overrides safeguarding the mineral resource or where extraction of minerals would cause an unacceptable impact on local amenity and environmental assets.

When considering a proposal for a non-mineral development within the MSA, the requirement for 'prior extraction' in Policy MIN1 would therefore need to be evaluated against all other relevant local plan policies and current national policy guidance. This will include evaluating the overall impacts of the development on the environment, including air quality, the water environment, and environmental assets such as nature conservation areas and heritage assets (including archaeological remains), as well as the potential impacts of the development on the amenity of neighbouring uses. Where 'prior extraction' is being considered, the additional effects of this (albeit temporary) will also have to be factored in, and proposals will be expected to comply with the general requirements in Core Strategy Policy MIN5. It is therefore unlikely that further guidance is needed in the SAD and AAP on managing the effects of a 'prior extraction' scheme.

In so far as managing impacts of minerals development, it is considered that the Council is sound in its approach to 'prior extraction' in so far as recognising concerns of impacts on local amenity and on the environment. However, bearing in mind the comments made by Lichfield District Council and Staffordshire County Council, the potential impacts on adjoining areas and the views of relevant neighbouring authorities will also have to be taken into account when defining the boundaries of the MSA, areas of search, and sites for mineral extraction to avoid conflicts and ensure that there is no risk of sterilising resources in adjoining authority areas.

10.5 Conclusions

The review of the potential for 'prior extraction' in advance of development taking into account the different mineral resources which occur within Walsall, has found that the 'prior extraction' of minerals is unlikely to be



feasible in relation to most non-mineral developments in the Borough, nor would these make a major contribution towards mineral supplies. As such, it is concluded that there is no further need for a policy on prior extraction in the SAD; the BCCS Policy MIN1 is considered sufficient.

11 Overall Conclusions and Summary of Findings

11.1 Introduction

This section sets out the overall conclusions and summarises the findings of the SAD & AAP Minerals Project.

11.2 Assessment of Baseline Evidence

The Council has been very thorough in the preparation of its evidence base and to further supplement that work with a view to providing a minerals specific topic evidence paper, the SAD & AAP Minerals Project has set out a more detailed minerals planning policy context in Section 3, as well as a Background/ Context section in Sections 5 to 10 of this report. The latter provides an update of the Core Strategy baseline evidence on minerals supply and a summary of how the minerals options for the SAD and AAP have been developed. In addition, it is acknowledged that work on the joint West Midlands Local Aggregate Assessment (LAA) is ongoing and that the findings of this study with regards to sand and gravel as well as aggregates recycling can be reflected in the LAA in due course.

11.3 Soundness – Council’s Approach towards Minerals Development Options

Amec Foster Wheeler’s review of the Council’s approach for minerals development options and in particular of those options identified in the SAD Issues and Options Report has determined that the Council’s approach is both robust and complete, although the study has identified further sub-options in relation to sand and gravel provision, brick clay supply, and strategic stockpiling of fireclay, each of which have been considered and evaluated (see Sections 6.5, 7.5 and 8.5).

11.4 Economic Viability and Deliverability of Mineral Extraction Projects

The economic viability and deliverability of mineral extraction projects for each of the mineral resources within the Walsall administrative area are discussed in detail in Sections 5 to 9 of this report. The main findings for each of the mineral resources found in Walsall as well as aggregates recycling are outlined below.

Aggregates Recycling

The issue of aggregates recycling is both a minerals development as well as a waste management issue and as such needs to be cross referenced in the work being undertaken in the SAD and AAP Waste Project and in particular in any supporting need assessment.

Although there are existing CD&EW facilities located near to the administrative boundary of Walsall in Staffordshire, in line with national planning policy guidance the Council should seek to make appropriate provision for aggregates recycling facilities either by means of site allocations where feasible, or through the inclusion of an appropriate criteria based policy, where not.

However, the Council has only been able to identify three potential sites. Of the three sites which have been identified through the SAD & AAP Issues and Options consultation, none are without potential obstacles to their viability and deliverability. Evaluation of the potential waste management site options identified in the Walsall Site Allocation and CIL Deliverability and Viability Study (forthcoming) by DTZ in association with Wardell Armstrong, which has been carried out in parallel with this study, has also not identified any other suitable sites.

The recommended preferred option for the SAD or AAP is therefore not to allocate any specific sites for aggregates recycling, as the enabling policy already included in the Core Strategy (Policy WM4) is

considered sufficient to enable Walsall to provide any additional CD&EW recycling infrastructure likely to be required over the plan period (see Section 5.5). However, the SAD could supplement this by providing further guidance on suitable types of location in Walsall and on the Council's requirements for recycling proposals, if the Council considers it appropriate.

Sand and Gravel

This study has established that none of the areas of search or site allocations considered for sand and gravel extraction are without significant constraints. Furthermore, it is considered more likely that proposals for new sand and gravel workings will come forward within areas or sites with access to existing infrastructure or as extensions to permitted extraction sites, rather than in the other potential areas of search identified within the main sand and gravel resource area; although due consideration will need to be had to any potential cumulative effects of multiple extraction sites within a concentrated areas, particularly where such as areas straddles the administrative boundaries of Walsall and Lichfield / Staffordshire.

As such, it is recommended that the preferred option for the SAD is to identify the two areas of search for sand and gravel identified in the BCCS only (i.e. MXA1: Birch Lane and MXA2: Branton Hill), as there is insufficient evidence that working would be viable or deliverable in the other areas considered. Furthermore, the enabling policy already included in the Core Strategy (Policy MIN2) provides sufficient flexibility to allow sand and gravel working outside of these areas should a suitable proposal come forward within the plan period (see Section 6.5).

Brick Clay

This study has established that none of the brick clay options considered are without significant constraint and that due consideration would need to be given to the potential cumulative effects of the concentration of mineral extraction and brickworks within the wider area and whether or not it would be feasible for the remaining permitted brick clay reserves and any future brick clay resources to serve all three brickworks in the area even though there are currently two operators involved.

Evidence indicates that the remaining resources in the Stubbers Green area are sufficient to provide a 25-year supply to both Aldridge and Atlas Brickworks, although it is unlikely to also provide a long-term supply for Sandown Brickworks once the remaining reserves at Sandown Quarry are exhausted. A long-term supply of brick clay for Sandown Brickworks would need to be secured through the identification of an Area of Search on land to the north of the A461. This would enable the extraction of brick clay outside the Jockey Fields SSSI, allowing for an appropriate but significant 'buffer' between any potential extraction areas and the SSSI, and thereby providing justification for resisting working within the SSSI at Highfields North (MXP6).

In terms of securing a future supply of brick clay for the three operational brickworks in Walsall in accordance with national policy guidance, **this study therefore recommends identifying two Areas of Search for brick clay extraction, namely Stubbers Green (MXA3) identified in the Core Strategy and in addition, Land to the North of the A461 (MXA9), as preferred options in the SAD**, in addition to the 'dormant' Highfields North site (MXP6) which will have to be shown as an existing commitment (see Section 7.5).

Fireclay

This study has established that any future extraction of fireclay in Walsall is considered very unlikely. Not only are the fireclay resources located in a significantly constrained area in terms of environmental and nature conservation value, given that fireclay can only be extracted in conjunction with the overlying coal using opencast coal extraction methods and that there is currently no interest by the industry to bring forward any new coal extraction sites nationally let alone in the Walsall area, there is no prospect of fireclay being worked in the borough.

In addition to the above, the interest in working Walsall's fireclay resources is limited to only the one operator of Swan Works, who currently rely on stockpiled resources at the Birch Coppice site. Although reserves at the site are now limited, it has been established that the annual supply requirement is only around 2,000 tonnes per annum. This is a relatively low amount and arguably this requirement could be met from imports.

It is concluded therefore that given the significant environmental constraints, there being no prospect of future coal extraction, and the ability for fireclay requirements to be met from imports, that there is no basis for identifying an Area of Search for fireclay in the SAD. **The recommended preferred option for fireclay extraction is therefore not to identify an area of search at Yorks Bridge (MXA4) even though such an area is indicated in the Core Strategy, and to only identify the 'dormant' Brownhills Common site, as an existing commitment** (see Section 8.5).

In terms of the potential strategic stockpiling of fireclay, this study has concluded that the continued long term use of the Birch Coppice site for clay stockpiling and any potential expansion of that use is unlikely to be acceptable, not only given the proximity to existing housing but also given the significant environmental and nature conservation constraints of the area. **As such, it is considered sufficient for the SAD to rely on Policy MIN3 of the BCCS and this is therefore the recommended preferred option for strategic stockpiling of fireclay** (see Section 8.5).

Potential for Unconventional Hydrocarbons

It has not been possible to identify any areas which may have potential for the extraction of coal bed methane and/or shale gas. As well as there being no current PEDLs in the Walsall area, no further interest has been expressed by the oil and gas industry either directly to the Council or as a result of the latest Petroleum Act 1998 Onshore Licensing Maps consultations. Given that oil and gas companies cannot prospect without a PEDL, it is considered that the likelihood of oil and gas proposals coming forward in Walsall during the plan period is remote and as such there is no justification for any further guidance in the SAD; **relying on Policy MIN4 of the BCCS should be sufficient** (see Section 9.5).

Prior Extraction

The review of the potential for prior extraction in advance of development taking into account the different mineral resources which occur within Walsall, has found that the prior extraction of minerals is unlikely to be feasible in relation to most non-mineral developments in the Borough, nor would these make a major contribution towards mineral supplies. **As such, it is concluded that there is no further need for a policy on prior extraction in the SAD; the BCCS Policy MIN1 is considered sufficient** (see Section 10.5).

Bibliography

As well as setting out the documents referred to in this report, the following sets out a bibliography of the key background documents which have informed the Walsall SAD & AAP Minerals Project. This is not intended to be an exhaustive list. The documents and web links (where appropriate) were up-to-date at the time the report was written in June 2015, but may be subject to change.

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National Policy Guidance	
National Planning Policy Framework (NPPF) (March 2012), CLG	http://planningguidance.planningportal.gov.uk/blog/policy/
National Planning Policy for Waste (NPPW) (October 2014), CLG	https://www.gov.uk/government/publications/national-planning-policy-for-waste
National and Regional Guidelines for Aggregates Provision in England 2005-2020 (June 2009), CLG	https://www.gov.uk/government/publications/national-and-regional-guidelines-for-aggregates-provision-in-england-2005-to-2020
National Planning Practice Guidance (NPPG) – online resource	http://planningguidance.planningportal.gov.uk/blog/guidance/minerals/
Walsall Local Plan	
Black Country Core Strategy 2011 (BCCS) (February 2013), Black Country Authorities	http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_development_framework/ldf_core_strategy.htm
Walsall Unitary Development Plan 2005 (UDP) (April 2005), Walsall Council – “saved” policies in Written Statement, “saved” Proposals Map and “saved” Town and District Centre Inset Maps	http://cms.walsall.gov.uk/index/environment/planning/planning_policy/unitary_development_plan.htm
Walsall Council – Other Planning Policy	
Darlaston Local Development Order 2012 (April 2012), Walsall Council	http://cms.walsall.gov.uk/index/environment/planning/ldo.htm
Revised Conserving Walsall’s Natural Environment Supplementary Planning Document (SPD) (July 2013), Walsall Council	http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_development_framework/ldf_supplementary_planning_documents.htm
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Black Country Core Strategy Submission Document: Minerals Background Paper 2 Version 2 (Revised) and Appendices 1 – (February 2010), Black Country Authorities	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
J11: Black Country Core Strategy Independent Examination, Minerals Monitoring Update – June 2010, Black Country Authorities	http://blackcountrycorestrategy.dudley.gov.uk/examination/examination-library/j---examination-documents/
Walsall Council – Evidence on Viability and Deliverability	
Black Country Joint Core Strategy: Stage Two Infrastructure and Deliverability Study - Deliverability Summary, Maps, Technical Note 6: Ground Risk and Minerals Extraction (November 2009), Mott MacDonald	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
Black Country Joint Core Strategy: Sample Sites Viability Study	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/

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Black Country Core Strategy: Delivery and Implementation Plan (February 2010), Black Country Consortium	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
Walsall Council – Sustainability Appraisal and HRA	
Sustainability Appraisal Report to accompany the Publication Version of the Joint Core Strategy – Vol. 1 (Non-Technical Summary and Main Report), Vol. 2 (Appendices), Vol. 3 (Constraints Mapping) (November 2009), UE Associates	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
J15: Habitats Regulations Assessment of the Joint Black Country Core Strategy - Screening Report and Appendices (Jun 2010), UE Associates	http://blackcountrycorestrategy.dudley.gov.uk/examination/examination-library/j--examination-documents/
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Sustainability Appraisal of the Black Country Core Strategy: Sustainability Appraisal Adoption Statement (Dec 2010), UE Associates	http://blackcountrycorestrategy.dudley.gov.uk/
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The Black Country Strategic Flood Risk Assessment (SFRA) (Final) (February 2009), Jacobs	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
Ford Brook Strategic Flood Risk Mapping, Final Report (July 2009), Halcrow Group Ltd	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
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The Black Country Water Cycle Study and Scoping Surface Water Management Plan, Final Report (September 2009), Scott Wilson	http://blackcountrycorestrategy.dudley.gov.uk/evidencesa/
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Air Quality in Walsall – AQMA	Walsall Council Air Quality web pages: http://cms.walsall.gov.uk/index/environment/pollution/air_quality.htm
Air Quality in Walsall - West Midlands Low Emissions Strategy (currently in preparation), West Midlands Low Emissions Towns & Cities Programme	http://cms.walsall.gov.uk/index/low_emissions_towns_and_cities_programme.htm
Coal and Limestone Mining in Walsall – Information Sources	Coal Authority mapping: https://www.gov.uk/government/publications/coalfield-plans-walsall-area Planning Interactive Map (available on Council website) shows extent of historic limestone working in the borough: https://stratus.pbondemand.eu/connect/walsall/?mapcfg=Limestone
Contaminated Land in Walsall – Information Sources	Walsall Council web pages: http://cms.walsall.gov.uk/index/environment/pollution/contaminated_land.htm
Historic Environment in Walsall - Information Sources	MAGIC - includes English Heritage data sets: http://magic.defra.gov.uk/ National Heritage List – interactive map hosted by English Heritage showing boundaries of Scheduled Monuments, Registered Parks and Gardens, and the location of statutorily Listed Buildings: http://list.english-heritage.org.uk/

Document Title	Web Link
	Heritage Gateway - search facility includes sites on the Walsall & Wolverhampton Historic Environment Record (HER): http://www.heritagegateway.org.uk/gateway/ Walsall Council website has further advice about the historic environment in the borough: http://cms.walsall.gov.uk/index/environment/conservation_and_regeneration.htm
Landscape Character in Walsall – Information Sources	Natural England guidance on the Midlands Plateau and Cannock Chase and Cank Wood landscape character areas: http://www.naturalareas.naturalengland.org.uk/Science/natural/NA_Details.asp?N=&R=5&NA_Id=43 http://www.naturalengland.org.uk/publications/nca/cannock_chase_and_cank_wood.aspx The Black Country Historic Landscape Characterisation (2009) is available on the Archaeology Data Service website: http://archaeologydataservice.ac.uk/archives/view/blackcountry_hlc_2009/downloads.cfm
Natural Environment in Walsall - Information Sources	MAGIC – includes Natural England data sets showing boundaries of sites of national and international importance including SACs, SPAs, Ramsar sites, SSSIs, NNRs, Ancient Woodland and priority habitats and species in the National BAP: http://magic.defra.gov.uk/ Walsall Council website has further information about designated nature conservation sites in the borough (SAC, SSSIs, SINCs, SLINCs, LNRs): http://cms.walsall.gov.uk/index/environment/conservation_and_regeneration.htm http://cms.walsall.gov.uk/index/environment/conservation_and_regeneration/nature_conservation/nature_reserves.htm http://cms.walsall.gov.uk/index/leisure_sports_community/countryside.htm
Urban Open Space in Walsall – Information Sources	Walsall Open Space, Sport and Recreational Facilities: PPS17 Audit and Assessment (2011), available on Council website: http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_development_framework/evidence.htm Walsall Green Space Strategy 2012 – 2017 (2012): http://cms.walsall.gov.uk/index/leisure_sports_community/greenspacstrategy.htm
Water Quality in Walsall – Information Sources	Environment Agency - Humber River Basin Management Plan (2009): https://www.gov.uk/government/publications/river-basin-management-plan-humber-district
Water Resources in Walsall – Information Sources	Environment Agency interactive mapping – “what’s in your backyard” shows extent of Aquifers and Groundwater SPZs: http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683.0&y=355134.0&scale=1&layerGroups=default&ep=map&textonly=off&lang=en&topic=groundwater
Walsall Local Plan – Emerging Development Plan Documents	
Walsall Site Allocation Document (SAD) – Issues & Options Report and Appendices (Apr 2013), Walsall Council	http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_development_framework/site_allocation_document.htm
Walsall Town Centre Area Action Plan (AAP) – Issues & Options Report and Appendices (Apr 2013), Walsall Council	http://cms.walsall.gov.uk/index/environment/planning/planning_policy/local_plans/walsall_town_centre_area_action_plan.htm
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Mineral Safeguarding Areas for Warwickshire (June 2009), OR/08/065 British Geological Survey	http://www.warwickshire.gov.uk/MSA
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Birmingham Development Plan 2031: Infrastructure Delivery Plan (Oct 2013), Birmingham City Council	http://www.birmingham.gov.uk/plan2031/evidencebase
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BGS Geological Maps - Digital Mapping	http://www.bgs.ac.uk/products/onshore/home.html
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Prior Extraction Opportunities (updated monthly)	http://coal.decc.gov.uk/en/coal/cms/services/planning/prior_ext_opps/prior_ext_opps.aspx
General Good Practice Advice and Guidance	
Nature After Minerals Report (Feb 2006), RSPB and MIRO	http://www.rspb.org.uk/ourwork/policy/planning/mineralsplanning.aspx
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Aggregates, Concrete and Ready-mix Concrete Market Investigation: Final Report (Jan 2014), Competition Commission	http://webarchive.nationalarchives.gov.uk/20140402141250/http://www.competition-commission.org.uk/our-work/directory-of-all-inquiries/agggregates-cement-ready-mix-concrete
Sustainable Aggregates Information Gateway (online resource), Mineral Industry Research Organisation (MIRO) (formerly Goodquarry.com)	http://www.sustainableaggregates.com/index.html
The Sustainable Use of Resources for the Production of Aggregates in England (August 2006), WRAP	http://www2.wrap.org.uk/downloads/WRAP_AGG0059_project_report_final_20.10.06.979f8d1f.3337.pdf
Mineral Products Association (MPA) website: Mineral Products Industry Key Facts at a Glance (2014) Make the Link (2012) Annual Mineral Planning Reports (AMPs) 2010 and 2012 Waste Policy Briefing (2012) Sustainable Development Reports 2009 – 2013	http://www.mineralproducts.org/news_publications01.htm http://www.mineralproducts.org/iss_policy01.htm http://www.mineralproducts.org/sustainability/reports.html
Aggregate Resource Alternatives: Options for future aggregate minerals supply in England (2008), British Geological Survey for MIRO and Defra	https://www.bgs.ac.uk/downloads/start.cfm?id=1374
British Aggregates Association (BAA) website	http://www.british-aggregates.co.uk/
National Federation of Demolition Contractors (NFDC) website	http://demolition-nfdc.com/
Brick Clay and Ceramics Industry	
Brick Clay - Mineral Planning Factsheet (Feb 2007), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Fireclay - Mineral Planning Factsheet (Oct 2006), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Brick Clay – Issues for Planning (2001), DTLR and British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html

Document Title	Web Link
Survey	
Fireclays in Ceramic Production (2002), British Geological Survey, British Ceramic Confederation and CoalPro	http://www.bgs.ac.uk/mineralsuk/search/home.html
Wienerberger Finance Service BC and Baggeridge Brick plc: A report on the anticipated acquisition by Wienerberger Finance Service BV of Baggeridge Brick plc – Final Report (May 2007), Competition Commission	http://webarchive.nationalarchives.gov.uk/20140402141250/http://www.competition-commission.org.uk/our-work/directory-of-all-inquiries/wienerberger-finance-service-bv-baggeridge-brick-plc/final-report-and-appendices-glossary
British Ceramic Confederation (BCC) website	http://www.ceramfed.co.uk/
Brick Development Agency (BDA) website	http://www.brick.org.uk/
Building Stone	
Building and Roofing Stone – Mineral Planning Factsheet (Jul 2007), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Strategic Stone Study – Staffordshire Building Stone Atlas (Jan 2012), British Geological Survey and English Heritage	http://www.bgs.ac.uk/mineralsuk/buildingStones/StrategicStoneStudy/EH_atlases.html
Energy Minerals – Coal	
Coal - Mineral Planning Factsheet (Aug 2010), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Fireclay - Mineral Planning Factsheet (Oct 2006), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Summary of Information on Coal for Land Use Planning Purposes (2006), British Geological Survey and CLG	http://www.bgs.ac.uk/mineralsuk/mines/coal/home.html
Mineral Profile: Coal (Mar 2010), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
United Kingdom Opencast Coal Statistics 2011 and 2012 (2013), British Geological Survey in collaboration with the Coal Authority	http://www.bgs.ac.uk/mineralsuk/mines/coal/occ/home.html
Prior Extraction of Coal Resources during Development Activity (2013), Coal Authority and CoalPro	http://webarchive.nationalarchives.gov.uk/20140721140515/http://coal.decc.gov.uk/assets/coal/whatwedo/12aug13-prior-extraction-guidance-final-july-2013.pdf
Confederation of Coal Producers (CoalPro) website	http://www.coalpro.co.uk/index.shtml
Energy Minerals – Unconventional Hydrocarbons	
Onshore Oil and Gas - Mineral Planning Factsheet (Mar 2011), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Alternative Fossil Fuels - Mineral Planning Factsheet (Oct 2011), British Geological Survey	http://www.bgs.ac.uk/mineralsuk/search/home.html
Onshore Oil and Gas Exploration and Production – DECC online resources	https://www.gov.uk/oil-and-gas-onshore-maps-and-gis-shapefiles
The Hydrocarbon Prospectivity of Britain's Onshore Basins (2010), DECC	https://www.gov.uk/oil-and-gas-onshore-exploration-and-production
The Unconventional Hydrocarbon Resources of Britain's Onshore Basins – Coalbed Methane (CBM) (2010), DECC	https://www.gov.uk/oil-and-gas-onshore-exploration-and-production
The Unconventional Hydrocarbon Resources of Britain's Onshore Basins – Shale Gas (2011), DECC	https://www.gov.uk/oil-and-gas-onshore-exploration-and-production
Strategic Environmental Assessment for Further Onshore Oil and Gas Licensing: Environmental Report (Dec 2013), AMEC	https://www.gov.uk/government/consultations/environmental-report-for-further-onshore-oil-and-gas-licensing

Document Title	Web Link
Developing Onshore Gas and Oil – Facts about Fracking (Dec 2013), DECC	https://www.gov.uk/government/publications/about-shale-gas-and-hydraulic-fracturing-fracking
Shale Gas and Fracking: House of Commons Library Standard Note SN/SC/6073 (5 Jun 2014)	http://www.parliament.uk/business/publications/research/briefing-papers/SN06073/shale-gas-and-fracking
Planning on the Doorstep – the Big Issues: Fracking (Jul 2014), URS for PAS and LGA	http://www.pas.gov.uk/web/pas-test-site/councillors-page/-/journal_content/56/332612/6209939/ARTICLE
Oil and Gas Licensing Rounds: 14th Landward Licensing Round (28 Jul – 28 Oct 2014)	https://www.gov.uk/oil-and-gas-licensing-rounds#th-landward-licensing-round https://www.gov.uk/government/publications/map-of-onshore-licences-sea-areas-and-prospective-areas
Other Relevant Documents	
Digest of Waste and Resource Statistics: 2015 Edition (2015), Defra	https://www.gov.uk/government/statistics/digest-of-waste-and-resource-statistics-2015-edition



Appendix A

Completed Areas of Search and Potential Site Allocations Proformas

**Walsall SAD & AAP Minerals Study 2015:
Assessment Pro-Forma**

A: Birch Lane Area Options

Site Details					
SAD Minerals Reference		MXA1	MXP1	MXP5	AR3 (MP1)
Site Name		Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type		Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
Viability and Delivery Assessment					
Requirements		Consultant's Comments			
1	Site Visit/ Review of Available Information	Located on the north-eastern edge of the Aldridge urban area, the boundaries of the 51.5 ha AOS are formed by Birch Lane, Lazy Hill Road, and Chester Road (A452). The AOS comprises mainly open arable land consisting of fields bounded by hedgerows with small	Located on the north-eastern edge of the Aldridge urban area and accessed from Birch Lane, the 12.14 ha site consists of predominantly open arable fields bounded by hedgerows. The Birch House Business Park is located immediately to the north east of the site.	Located on the north-eastern edge of the Aldridge urban area and accessed off Birch Lane, the 5.54 ha site consists of open arable fields bounded by hedgerows. The south-western corner of the proposed site backs onto the residential properties on Kniver	Former sand and gravel quarry, located on the north-eastern edge of the Aldridge urban area and accessed off Birch Lane. The 4.4 ha site is well screened from the surrounding area by established tree planting and site levels.

Site Details				
SAD Minerals Reference	MXA1	MPX1	MPX5	AR3 (MP1)
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
	<p>pockets of woodland. It includes the Birch House Business Park, a small commercial development as well as the former Aldridge Quarry, accessed off Birch Lane.</p> <p>Located in the Green Belt, the AOS reflects that which was identified in the Black Country Core Strategy 2011 (Policy MIN2).</p>	<p>Located in the Green Belt, the proposed allocation for sand and gravel extraction was first promoted for inclusion in the Black Country Core Strategy in 2007.</p>	<p>Crescent and Clifton Avenue.</p> <p>Located in the Green Belt, the proposed allocation was initially promoted as a housing site in response to the SAD 'call for sites' (2011), despite being located within a mineral resource area. Following further consultation, the site has been put forward for consideration as a potential site for sand and gravel extraction by the site's promoter.</p>	<p>Quarry closed in 2008 and was originally an extension to a previous quarry which has in part been restored back to agriculture use with some of the site developed for commercial use.</p> <p>Final restoration of the former quarry to previous ground levels by inert landfilling has yet to be commenced, let alone completed. As such, the site is still being identified as an existing Permitted Mineral Site in the SAD.</p>

Site Details					
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)	
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry	
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate	
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation	
				Existing permission prohibits on-site aggregates recycling and a previous application by the operator to allow recycling of construction, demolition and excavation waste (CD&EW) was refused and the appeal dismissed.	
2	Feedback from Operator/ Agent/ Owner	Not applicable	Site was initially put forward for consideration by Cemex in 2007. Since then they have indicated they are not intending to pursue the site at the present time. Nevertheless, the site has	The proposed allocation was initially promoted as a housing site in response to the SAD 'Call for Sites' (2011), despite being located within a mineral resource area and the Green Belt. Following	The site has been identified by the Council as a potential aggregates recycling facility based on previous planning history.

Site Details					
SAD Minerals Reference		MXA1	MXP1	MXP5	AR3 (MP1)
Site Name		Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type		Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
			been retained by the Council as a potential site option for consideration. Amec Foster Wheeler has sought further confirmation from Cemex on their position. It was confirmed by telephone conversation that Cemex's position remains unchanged, i.e. they are not seeking to pursue the site at the present time.	further consultation, the site has been put forward for consideration as a potential site for sand and gravel extraction by the site's promoter.	
3a	Mineral Resource Present – estimated extent of winnable mineral resource present within the area (million tonnes)	Potential winnable resource = estimated 5.2 MT Based on the information which is being used to inform the	Total Resource = 2.6 MT: 1.8 MT sand (sandstone) 0.8 MT sand and gravel (conglomerate).	Undetermined. No information has been received from the site promoter on the potential mineral	Not applicable

Site Details				
SAD Minerals Reference	MXA1	MPX1	MPX5	AR3 (MP1)
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
	Local Aggregate Assessment, which in turn has been extrapolated from information provided by Cemex in 2007. Figure would need to be further verified and refined through appropriate borehole information to ascertain actual winnable resource. It is anticipated that such information would only become available either through pre-application discussion and/or at a planning application	Source - letter from Cemex to Walsall MBC dated 14.12.07.	resource present at the proposed allocation. It is anticipated that such information would only become available through either pre-application discussions and/or at a planning application stage, or at the discretion of a potential mineral operator / site promoter with an interest in extracting the potential sand and gravel resource.	

Site Details					
SAD Minerals Reference		MXA1	MPX1	MPX5	AR3 (MP1)
Site Name		Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type		Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
		stage, or at the discretion of a potential mineral operator with an interest in extracting the potential sand and gravel resource.			
3b	Estimated Annual Output – estimated annual throughput/output of primary, secondary or recycled aggregate (tonnes per annum)	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator.	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator.	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator.	Estimated Production = 25,000 TPA (Total inputs into landfill/recycling plant = 100,000 TPA of which around 25,000 TPA would be recyclable). Source – Committee Report 25.06.03 (Brownhills & Aldridge North District)

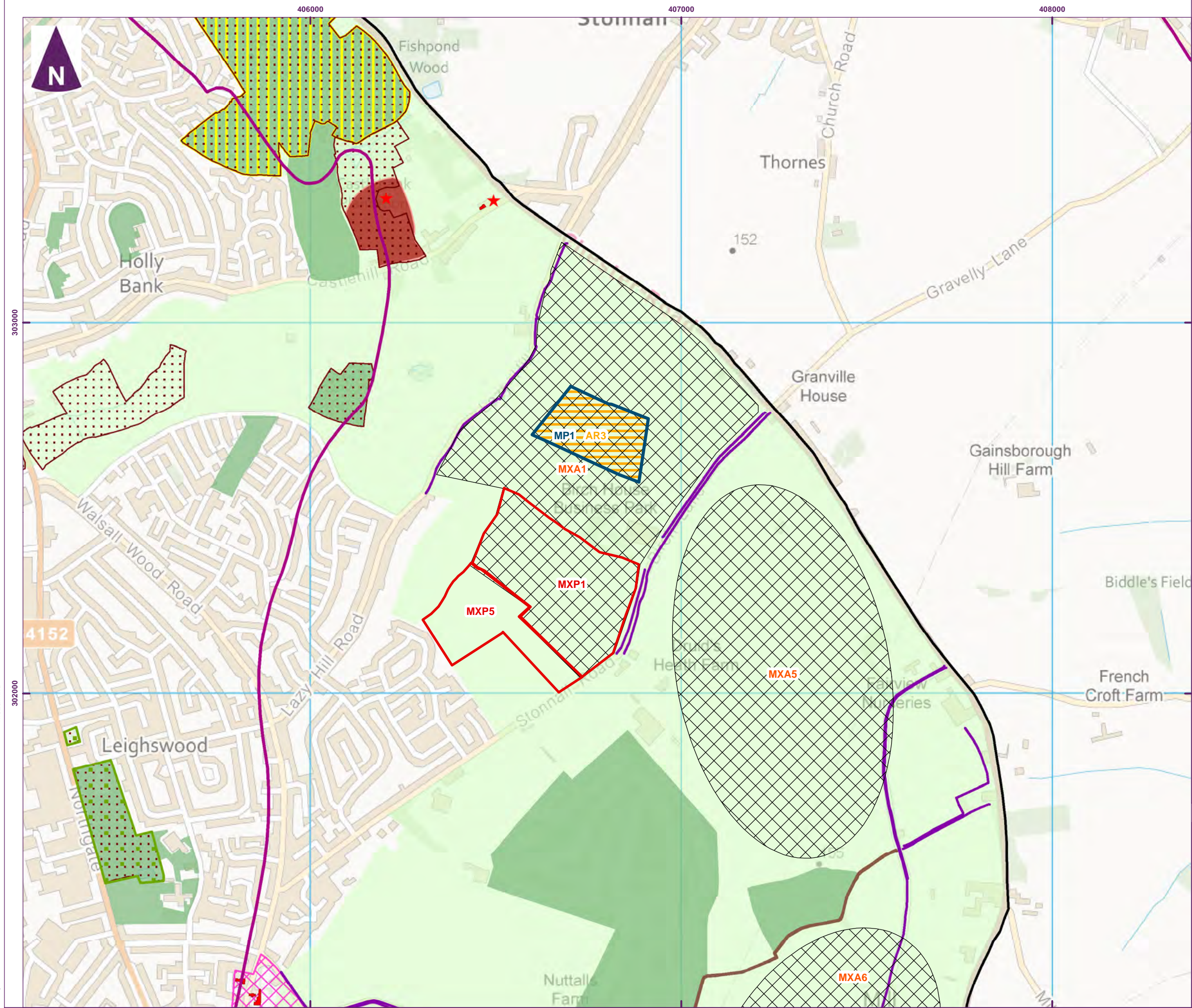
Site Details					
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)	
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry	
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate	
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation	
				Committee) on application BC63579P.	
4	Constraints	The proposed AOS boundary has been amended in response to comments received from local residents to omit those parts of the area nearest to existing residential properties (including Site MXP5) so as to provide a 'buffer' between potential extraction areas and these properties. This has been considered necessary to address concerns about proximity to existing	Aside from any environmental and/or amenity constraints, a further constraint to the viability and delivery of mineral extraction at this site is in relation to land owner / mineral operator support.	Key constraint is the site's close proximity to existing residential properties. The proposed site now lies outside the proposed Birch Lane AOS boundary (MXA1); amended in response to comments received from local residents to address concerns about proximity to existing properties, impacts on amenity, and possible impacts on ground stability.	Potential to develop any aggregate recycling facility at the site would appear to be dependent on the progression of the restoration of the former quarry. Without this, there are apparent concerns that any new sites which may be developed may also remain unrestored, with consequential impacts on the landscape and visual appearance of the area, as well as implications for future land use.

Site Details				
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
	properties, impacts on amenity, and possible impacts on ground stability.		Should the site be developed for future sand and gravel extraction, appropriate mitigation measures would need to be put in place to minimise any potential adverse effects, not least an appropriate 'buffer zone'. The number and cost implications of such measures are likely to have a bearing on the viability and deliverability of mineral extraction at this site.	<p>Provided the above can be demonstrated, the viability and delivery of an aggregate recycling facility may be constrained by access issues.</p> <p>In addition, there have been a large number of objections from local residents to future minerals and waste operations in this area which in itself could be a constraint on the ability to bring forward a recycling scheme associated with a</p>

Site Details					
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)	
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry	
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate	
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation	
				restoration programme at the site.	
5	Key Delivery Requirements		<p>Without either the existing operator and/or landowner support to promote and develop the site for mineral extraction, the likelihood of this site coming forward for minerals extraction is significantly affected and a potential barrier to the economic viability of this site.</p>	<p>Appropriate mitigation measures to address concerns about proximity to existing properties, impacts on amenity, and possible impacts on ground stability would be required.</p> <p>In particular the proximity to housing and the provision of an appropriate 'buffer' between potential extraction and existing housing may impact on the economic viability of</p>	<p>Potential to develop any aggregate recycling facility at the site would appear to be dependent on the progression of the restoration of the former quarry. Without this, there are apparent concerns that any new sites which may be developed may also remain unrestored, with consequential impacts on the landscape and visual appearance of the area, as well as implications for future land use.</p>

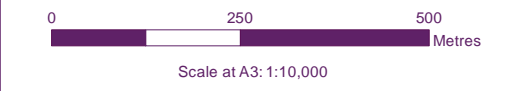
Site Details					
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)	
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry	
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate	
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation	
			any proposed mineral extraction at this site.		
6	Conclusions	Key to the viability and deliverability of future mineral extraction in the AOS is dependent upon a number of factors, most importantly whether or not there is an interest by the minerals industry to either develop the existing Aldridge Quarry or any extensions to it.	Based on the information set out above, it is considered that the viability and deliverability of a mineral extraction proposal at this site is unlikely; the main factor being the apparent lack of mineral industry interest in the site.	Based on the information set out above, it is considered that the viability and deliverability of a mineral extraction proposal at this is questionable given the site's proximity to existing residential properties.	Aside from the various constraints, assessing the viability and deliverability of this potential site also needs to give due consideration to the locational criteria for aggregate recycling facilities as set out in national planning policy guidance. Although co-location with operational quarries is encouraged, in this case the former Aldridge Quarry has ceased to operate and has been partially

Site Details				
SAD Minerals Reference	MXA1	MXP1	MXP5	AR3 (MP1)
Site Name	Birch Lane	Land Near Aldridge Quarry	Land at Birch Lane	Aldridge Quarry
Mineral Type	Sand & Gravel	Sand & Gravel	Sand & Gravel	Recycled Aggregate
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	Potential Site Allocation
				restored. This is likely to be a key consideration in the viability and deliverability of an aggregates recycling facility at this site.



- Key
- Potential New Mineral Site
 - Permitted Mineral Site
 - Minerals Area of Search
 - Potential Aggregate Recycling Sites
 - Walsall borough boundary
 - Source Protection Zone 3
 - ★ Local Listed Building
 - Listed Building (Extent)
 - Public Rights of Way
 - SINC's
 - SLINC (Hedge)
 - Conservation Area
 - Local Nature Reserves
 - Scheduled Monument
 - Ancient Woodland
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites: Flood zones (2, 3 and 3b); Sites of Special Scientific Interest, Source Protection Zones and Special Areas of Conservation.



Walsall Council
 Review of Evidence Base
 for Minerals and Viability
 and Deliverability of Mineral
 Development Options



Figure A1
Birch Lane Area Options Constraints
Figure

**Walsall SAD & AAP Minerals Study 2015:
Assessment Pro-Forma**

B: Branton Hills & Daniel's Lane Area Options

Site Details					
SAD Minerals Reference		MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name		Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type		Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type		Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
Viability and Delivery Assessment					
Requirements		Consultant's Comments			
1	Site Visit/ Review of Available Information	Located to the south-west of the Aldridge urban area, the approximate 34 ha AOS is bounded by the freight railway line to the north, Daniel's Lane to the south, and the Chester Road (A452) to the east. Furthermore, the AOS is located near	Located to the east of Erdington Road and to the south of Daniel's Lane on the eastern edge of the Aldridge urban area. Located within the Green Belt, it is an area of open land comprising mainly a mixture of arable and pasture agricultural	The site is located off the A452 Chester Road and covers an area of 4.67 ha. Located in the former Branton Hill Quarry, the proposed area has been subject to partial infilling with inert waste although the restoration has not	Located to the south-west of the Aldridge urbane area, the proposed site allocation is located immediate to the south of the existing Branton Hill Quarry. The proposed 12.32 ha area is currently subject to a planning application, which has yet to be determined and

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	<p>Walsall's administrative boundary with Lichfield District in Staffordshire. The AOS consists primarily of agricultural land and the former Branton Hill Quarry, landfill and inert CDEW facility, which has partly been restored to wetland habitat and/or open space. The quarry is not currently operational, has mostly been infilled but there are large derelict areas which have yet to be restored. The site is</p>	<p>land, some horse grazing land as well as some recreational uses, including sports pitches and the Veyesans Rugby Club.</p> <p>The area has been identified by the Council as a potential AOS as a consequence of the site having been put forward for housing by the land owner in response to the first call for sites in 2011 (CFS47) despite being located in the Green Belt and</p>	<p>been completed and the area is now derelict.</p> <p>Located in the Green Belt, the site is subject to proposals to consolidate and relocate the existing recycling areas within the quarry combined with a new quarry access road direct onto the A452 Chester Road.</p> <p>Planning permission for the relocation of the recycling facilities was granted subject to conditions in October 2013.</p>	<p>consists of predominantly arable land bounded by hedgerows. The application has been held in abeyance for more than 15 years pending the resolution of issues concerning impacts of hydrology and access to the extension area.</p> <p>Located in the Green Belt, the site falls within the BGS identified sand and gravel resource area, as well as the area of search identified in the Black Country Core Strategy 2011 (Policy MIN2).</p>

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	currently accessed from the A454 Little Aston Road via Branton Hill Lane through a residential area. Located in the Green Belt, the AOS reflects that which has been identified in the Black Country Core Strategy 2011 (Policy MIN2) as well as Minerals Safeguarding Area in the former Walsall UDP.	within a BGS sand and gravel resource area.		
2	Feedback from Branton Hill Quarry Agent/ Case Officer		The planning application for the relocation of the recycling facilities is yet to be implemented.	Quarry operator went into receivership in May 203 and landowner is seeking to sell site and

Site Details					
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2	
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension	
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel	
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation	
				Quarry operator went into receivership in May 203 and landowner is seeking to sell site and surrounding land in his ownership (including proposed extension (MXP2)).	surrounding land in his ownership, including the proposed quarry extension area.
3a	Mineral Resource Present – estimated extent of winnable mineral resource present within the area (million tonnes)	Area is known to contain sand and gravel resources, not least due to the presence of the now closed Branton Hill Quarry and its proposed extension, currently subject to a planning application. Based on the information from	Unknown. It has not been possible to provide an indicative estimate of potential resource. It is anticipated that such information would become available through either pre-application discussions	Not applicable.	1.2 million tonnes sand and gravel Source: Application BC64995P for extension to Branton Hill Quarry (Supporting Statement, 1.2). The most recent AWP annual survey return (for

Site Details					
SAD Minerals Reference		MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name		Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type		Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type		Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
		that planning application and discounting the area of the now closed quarry, estimated sand and gravel resources are in the region of 1.2 million tonnes.	and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.		2011/12) indicates that remaining reserves within the permitted quarry are likely to be very limited, though it isn't 100% clear exactly how much remained when the site closed in May 2013.
3b	Estimated Annual Output – estimated annual throughput/output of primary, secondary or recycled aggregate (tonnes per annum)	Estimated reserves within the permitted Branton Hill Quarry (MP4) are in the region of 10,000 TPA. Source: AWP annual survey returns – the figure above represents	This information cannot be determined at this stage and it is anticipated this information would only become available through pre-application discussions or at a	25,000 TPA Source: Application form, planning application 11/0943/FL. N.B. this does not represent any net gain in production capacity over and above the annual throughput of	50,000 TPA Source: Application BC64995P for extension to Branton Hill Quarry (Supporting Statement, 1.2).

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	average (mean) production rate 2005 – 2011, although production in 2012 (last full year of operation) was higher. Reserves remaining within the permitted site are likely to be very limited so annual production rate from this area is likely to be low and is expected to cease shortly after the proposed extension site (MXP2) is implemented, subject to planning permission being granted.	planning application stage from a potential mineral operator.	the CLEUD areas when they were in operation, this was estimated to have been around the same.	AWP annual survey returns indicate an average (mean) production rate at former quarry of around 10,000 TPA 2005 – 2011, although production in 2012 (last full year of operation) was higher. Extraction within the current permitted area is expected to cease shortly after the proposed extension site (MXP2) is implemented, subject to

Site Details					
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2	
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension	
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel	
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation	
					planning permission being granted. ¹
4	Constraints	Proximity to sensitive receptors including housing, garden centre, other commercial uses, recreational use and agriculture. The existing access is deemed inadequate and inappropriate given its remoteness from the extraction area and the proposed extension area (MSP2). Approval of the latter is subject to	Proximity to sensitive receptors including housing (in particular high value properties), recreational uses and agriculture. Furthermore, with no previous mineral extraction within the area, a new access would have to be provided off Erdington Road to serve the area. Other constraints	Proximity to sensitive receptors including housing, garden centre, other commercial uses, recreational use and agriculture. The existing access is deemed inadequate and inappropriate given its remoteness from the extraction area and the proposed extension area (MXP2). Approval of the latter is subject to the	Proximity to sensitive receptors including housing, garden centre, other commercial uses, recreational use and agriculture. The existing access is deemed inadequate and inappropriate given its remoteness from the extraction area and the proposed extension area (MSP2). Approval of the latter is subject to the

¹ Subject to current application BC64995P.

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	the implementation of the new haul road approved for the relocation of the aggregate recycling facility. Nevertheless, the viability and deliverability of this haul road is questioned, given that it is apparently partly dependent on 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry.	include: overhead power lines; location within a groundwater SPZ; proximity to biodiversity and geological conservation sites (e.g. Daniel's Lane Hedges SLINC); and potential archaeological remains.	implementation of the new haul road approved for the relocation of the aggregate recycling facility. Nevertheless, the viability and deliverability of this haul road is questioned, given that it is apparently partly dependent on 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry. The AOS, as identified by the Environment Agency (EA), is at significant risk	implementation of the new haul road approved for the relocation of the aggregate recycling facility. Nevertheless, the viability and deliverability of this haul road is questioned, given that it is apparently partly dependent on 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry. The AOS, as identified by the Environment Agency (EA), is at significant risk

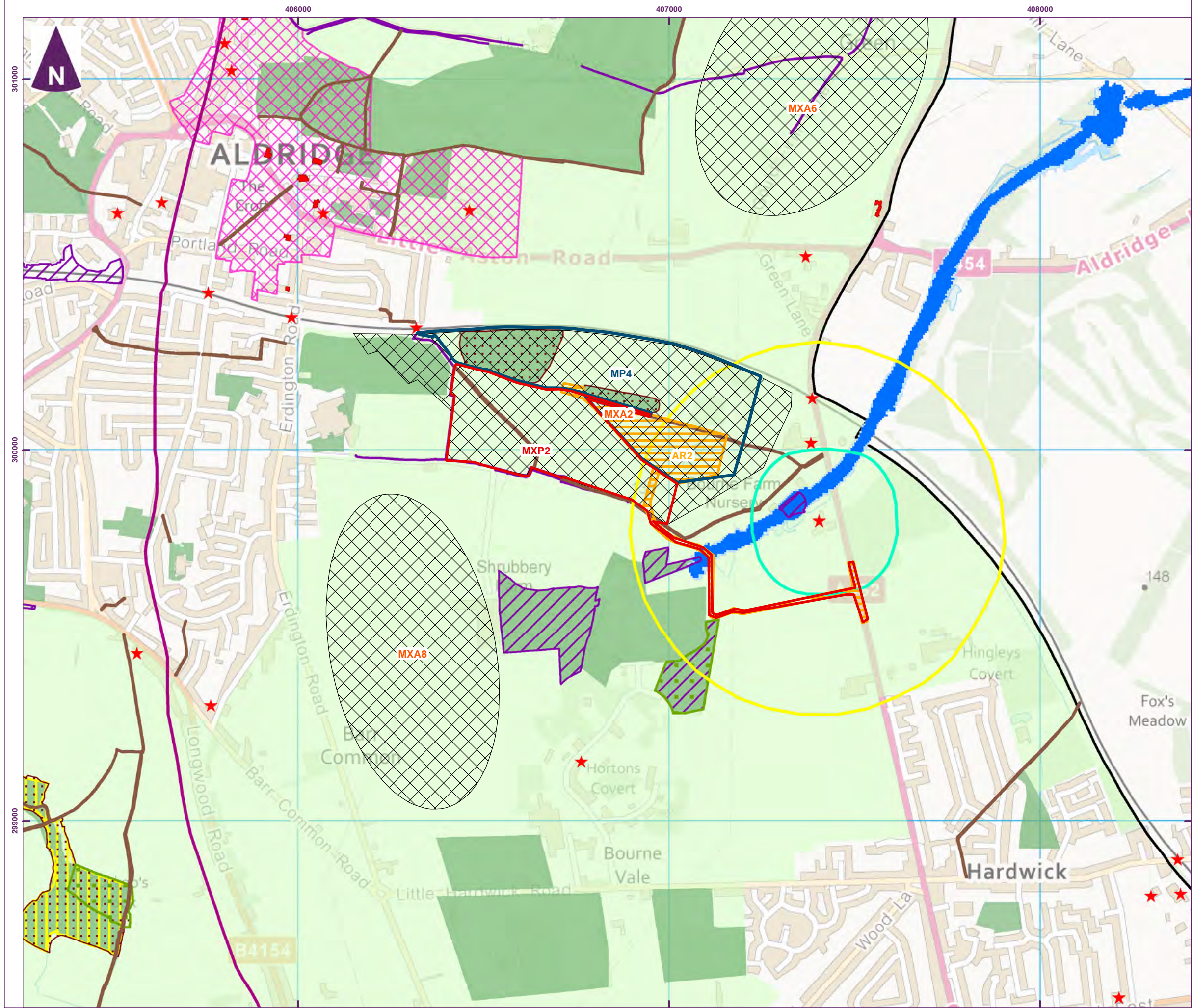
Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	<p>The AOS, as identified by the Environment Agency (EA), is at significant risk from surface water flooding during heavy rainfall events and is located within a groundwater SPZ. Further detailed comments from the EA are still awaited.</p> <p>The operator of Branton Hill Quarry went into receivership (May 2013) and the quarry has since closed. The owner is currently seeking to sell the site and the</p>		<p>from surface water flooding during heavy rainfall events and is located within a groundwater SPZ. Further detailed comments from the EA are still awaited.</p> <p>The operator of Branton Hill Quarry went into receivership (May 2013) and the quarry has since closed. The owner is currently seeking to sell the site and the surrounding land in his ownership, including the proposed extension</p>	<p>from surface water flooding during heavy rainfall events and is located within a groundwater SPZ. Further detailed comments from the EA are still awaited.</p> <p>The operator of Branton Hill Quarry went into receivership (May 2013) and the quarry has since closed. The owner is currently seeking to sell the site and the surrounding land in his ownership, including the proposed extension (MXP2). Unless a buyer</p>

Site Details					
SAD Minerals Reference		MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name		Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type		Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type		Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
		surrounding land in his ownership, including the proposed extension (MXP2). Unless a buyer and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of any mineral extraction and/or aggregate recycling activity in this AOS.		(MXP2). Unless a buyer and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of any mineral extraction and/or aggregate recycling activity in this AOS.	and/or another operator can be secured, this could potentially be a significant constraint to the viability and deliverability of any mineral extraction and/or aggregate recycling activity in this AOS.
5	Key Delivery Requirements	Potential for future mineral extraction and/or aggregate	Viability and deliverability of future mineral extraction in	Likelihood that the viability and deliverability of the approved	Potential for future mineral extraction and/or aggregate recycling in this

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	<p>recycling in this AOS would appear to be dependent on the progression of the restoration of the areas previously worked, not all of which have been restored to an acceptable standard. Any proposal for future extraction in the extension area (MXP2) is likely to be conditional on submission of a final restoration programme for the existing quarry. There are concerns that</p>	<p>the AOS is dependent upon a number of factors, not least whether or not there is an interest by the minerals industry to extract sand and gravel resources from the area.</p>	<p>relocation of the recycling facilities and new haul road will be dependent on the 'enabling development' of Bourne Farm for housing, which is located immediately to the east of the existing quarry.</p>	<p>AOS would appear to be dependent on the progression of the restoration of the areas previously worked, not all of which have been restored to an acceptable standard. Any proposal for future extraction in the extension area (MXP2) is likely to be conditional on submission of a final restoration programme for the existing quarry. There are concerns that unless this is addressed, it will set a precedent and any new areas for</p>

Site Details					
SAD Minerals Reference		MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name		Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type		Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type		Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
		unless this is addressed, it will set a precedent and any new areas for extraction may also remain unrestored, with consequential impacts on landscape and visual appearance of the site, as well as implications for future land use.			extraction may also remain unrestored, with consequential impacts on landscape and visual appearance of the site, as well as implications for future land use.
6	Conclusions	Viability and deliverability of future mineral extraction in the AOS is dependent upon a number of factors, not least whether or not there is an interest by the	Viability and deliverability of future mineral extraction in the AOS is dependent upon a number of factors, not least whether or not there is an interest by the	Viability and deliverability of the site is in part dependent upon the sale of the site and whether or not there is an interest by the minerals industry to develop the site.	Viability and deliverability of the site is in part dependent upon the sale of the site and whether or not there is an interest by the minerals industry to develop the site.

Site Details				
SAD Minerals Reference	MXA2	MXA8	AR2 (MIP1)	MXP2
Site Name	Branton Hill	Daniel's Lane	Branton Hill CLEUD Relocation Site	Branton Hill Quarry Extension
Mineral Type	Sand & Gravel	Sand & Gravel	Recycled Aggregate	Sand & Gravel
SAD Option Type	Proposed Area of Search	Potential Area of Search	Permitted Site	Potential Site Allocation
	minerals industry to develop the existing quarry and its approved extension, as well as the enabling development of Bourne Farm for housing, to facilitate the development of the new haul road and access onto the A452.	minerals industry to extract sand and gravel resources from the area.		



- Key
- Potential New Mineral Site
 - Permitted Mineral Site
 - Minerals Area of Search
 - Potential Aggregate Recycling Sites
 - Walsall borough boundary
 - Source Protection Zone 1
 - Source Protection Zone 2
 - Source Protection Zone 3
 - ★ Local Listed Building
 - Listed Building (Extent)
 - Public Rights of Way
 - SINC's
 - SLINC (Hedge)
 - SLINC
 - Conservation Area
 - Local Nature Reserves
 - Flood Zone 3
 - Flood Zone 2
 - Ancient Woodland
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites: Scheduled Monument; Sites of Special Scientific Interest and Special Areas of Conservation.

0 250 500
Metres

Scale at A3: 1:10,000

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Figure A2
Branton Hill & Daniel's Lane Area
Options Constraints Figure

**Walsall SAD & AAP Minerals Study 2015:
Assessment Pro-Forma**

C: West of Chester Road Area Options

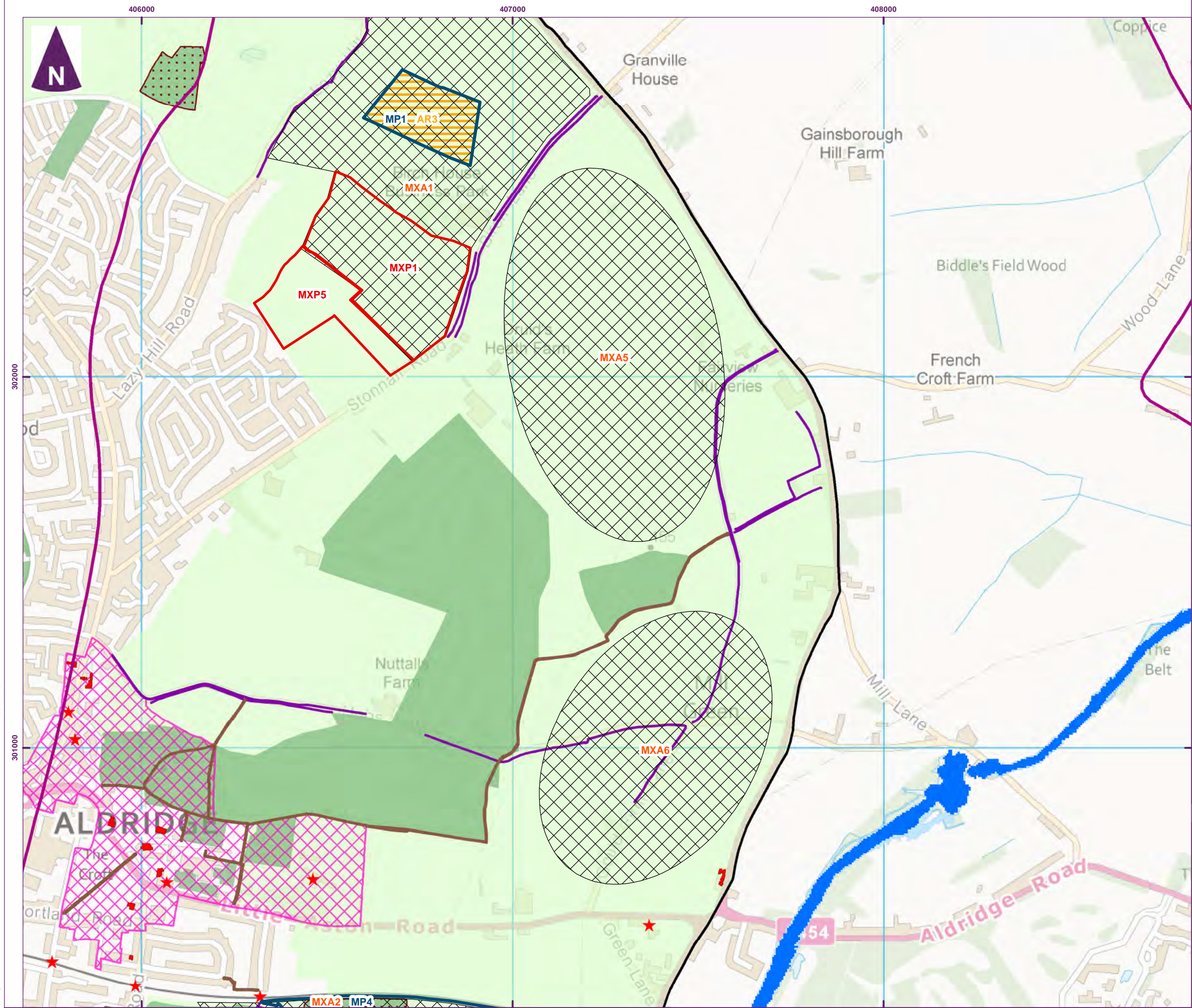
Site Details			
SAD Minerals Reference		MXA5	MXA6
Site Name		Druid's Heath	Hob's Hole Lane
Mineral Type		Sand & Gravel	Sand & Gravel
SAD Option Type		Potential Area of Search	Potential Area of Search
Viability and Delivery Assessment			
Requirements		Consultant's Comments	
1	Site Visit/ Review of Available Information	The potential AOS is located in the area between Birch Lane, the A452 Chester Road, Back Lane, the former Holly Lane Quarry, and Druid's Heath Farm / Golf Course to the east of the Aldridge urban area and near Walsall's administrative boundary with Lichfield District in Staffordshire. The area consists mainly of open land in agricultural use with some scattered settlements, land used for horse grazing, ribbon development (housing and commercial uses) along the frontage of Chester Road, the Druid's Heath golf course, and a motorcross track	The potential AOS is located on land to the west of the A452 Chester Road around the junction of Hob's Hole Lane, Back Land and Gould Firm Lane to the east of the Aldridge urban area and near Walsall's administrative boundary with Lichfield District in Staffordshire. The area consists mainly of open land in agricultural use which is crossed by small lanes with scattered settlements, some development on the frontage of Chester Road, the Druid's Heath golf course to the north-west, and a motorcross track off Chester Road to the north, on the site of the former Holly Lane Quarry.

Site Details			
SAD Minerals Reference		MXA5	MXA6
Site Name		Druid's Heath	Hob's Hole Lane
Mineral Type		Sand & Gravel	Sand & Gravel
SAD Option Type		Potential Area of Search	Potential Area of Search
		<p>off Chester Road to the south, on the site of the former Holly Lane Quarry.</p> <p>The AOS is located within the Green Belt and has been identified as an alternative to the MXA1 Birch Lane AOS following the receipt of a large number of objections to that area by nearby residents in response to the SAD and AAP Issues and Options consultation. The area is part of a BGS sand and gravel bedrock resource area as well as on their mapping of historic extraction sites. Furthermore, part of the area has been subject to an informal enquiry by a mineral operator in 2006 although this came to nothing at the time nor did it result in a planning application.</p>	<p>The AOS is located within the Green Belt and has been identified as an alternative to the MXA1 Birch Lane AOS following the receipt of a large number of objections to that area by nearby residents in response to the SAD and AAP Issues and Options consultation. The area is part of a BGS sand and gravel bedrock resource area as well as on their mapping of historic extraction sites. In addition, a number of potential housing sites were proposed in the area in response to the Call for Site Submission.</p>
2	Feedback from Operator/ Agent/ Owner	Not applicable	Not applicable
3a	Mineral Resource Present – estimated extent of winnable mineral resource	Potentially viable sand and gravel resources based on BGS mineral resource mapping, although it is not possible to provide an indicative estimate of	Potentially viable sand and gravel resources based on BGS mineral resource mapping, although it is not possible to provide an indicative estimate of

Site Details			
SAD Minerals Reference		MXA5	MXA6
Site Name		Druid's Heath	Hob's Hole Lane
Mineral Type		Sand & Gravel	Sand & Gravel
SAD Option Type		Potential Area of Search	Potential Area of Search
	present within the area (million tonnes)	the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.	the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.
3b	Estimated Annual Output – estimated annual throughput/output of primary, secondary or recycled aggregate (tonnes per annum)	Not applicable	Not applicable
4	Constraints	The extraction of potential mineral resources in the AOS is likely to require potential upgrading to the existing lanes or a new access off the A452 Chester Road to serve any potential extraction sites. Potential adverse effects on Public Rights of	The extraction of potential mineral resources in the AOS is likely to require potential upgrading to the existing lanes or a new access off the A452 Chester Road to serve any potential extraction sites. Potential adverse effects on Public Rights of

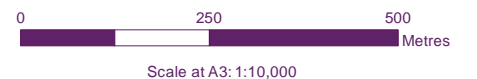
Site Details			
SAD Minerals Reference		MXA5	MXA6
Site Name		Druid's Heath	Hob's Hole Lane
Mineral Type		Sand & Gravel	Sand & Gravel
SAD Option Type		Potential Area of Search	Potential Area of Search
		<p>Way would also need to be considered and appropriately mitigated.</p> <p>Due consideration would also need to be had to any adverse effects on communities and highways infrastructure in neighbouring Lichfield District.</p> <p>Other potential constraints include: proximity to housing in particular high value housing (e.g. new housing built of Mill Green Farm); potential for archaeology; impacts on landscape and in particular the significant survival of historic field boundaries and hedgerows, especially in the Hob's Hole Lane area.</p>	<p>Way would also need to be considered and appropriately mitigated.</p> <p>Due consideration would also need to be had to any adverse effects on communities and highways infrastructure in neighbouring Lichfield District.</p> <p>Other potential constraints include: proximity to housing in particular high value housing (e.g. new housing built of Mill Green Farm); potential for archaeology; impacts on landscape and in particular the significant survival of historic field boundaries and hedgerows, especially in the Hob's Hole Lane area.</p>
5	Key Delivery Requirements	<p>Restoration of the existing Birch Lane Quarry.</p> <p>Willingness by the minerals industry to bring forward a viable minerals extraction operation.</p>	<p>Restoration of the existing Birch Lane Quarry.</p> <p>Willingness by the minerals industry to bring forward a viable minerals extraction operation.</p>
6	Conclusions	<p>Other than the one previous informal inquiry by a mineral operator, to date there has been no expressed interest in this AOS by the minerals industry. This combined with the area falling</p>	<p>Other than the one previous informal inquiry by a mineral operator, to date there has been no expressed interest in this AOS by the minerals industry. This combined with the area falling</p>

Site Details		
SAD Minerals Reference	MXA5	MXA6
Site Name	Druid's Heath	Hob's Hole Lane
Mineral Type	Sand & Gravel	Sand & Gravel
SAD Option Type	Potential Area of Search	Potential Area of Search
	<p>outside any AOS for sand and gravel identified in the Black Country Core Strategy as well as the presence of existing (albeit currently non-operational) extraction sites nearby, benefitting from access to appropriate infrastructure, could mean that proposals for sand and gravel extraction are unlikely to come forward in the short to medium term. Furthermore, the Council is unlikely to support further proposals for mineral extraction in the wider Aldridge area until there has been progress on the restoration of the existing quarry, not least because the impact of large-scale mineral working is likely to be very significant.</p>	<p>outside any AOS for sand and gravel identified in the Black Country Core Strategy as well as the presence of existing (albeit currently non-operational) extraction sites nearby, benefitting from access to appropriate infrastructure, could mean that proposals for sand and gravel extraction are unlikely to come forward in the short to medium term. Furthermore, the Council is unlikely to support further proposals for mineral extraction in the wider Aldridge area until there has been progress on the restoration of the existing quarry, not least because the impact of large-scale mineral working is likely to be very significant.</p>



- Key**
- Potential New Mineral Site
 - Permitted Mineral Site
 - Minerals Area of Search
 - Potential Aggregate Recycling Sites
 - Walsall borough boundary
 - Source Protection Zone 3
 - ★ Local Listed Building
 - Listed Building (Extent)
 - Public Rights of Way
 - SINC's
 - SLINC (Hedge)
 - Conservation Area
 - Flood Zone 3
 - Flood Zone 2
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites:
 Scheduled Monument; Sites of Special Scientific Interest, Source Protection Zones and Special Areas of Conservation.



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Figure A3
West of Chester Road Area Options
Constraints Figure

Walsall SAD & AAP Minerals Study 2015:

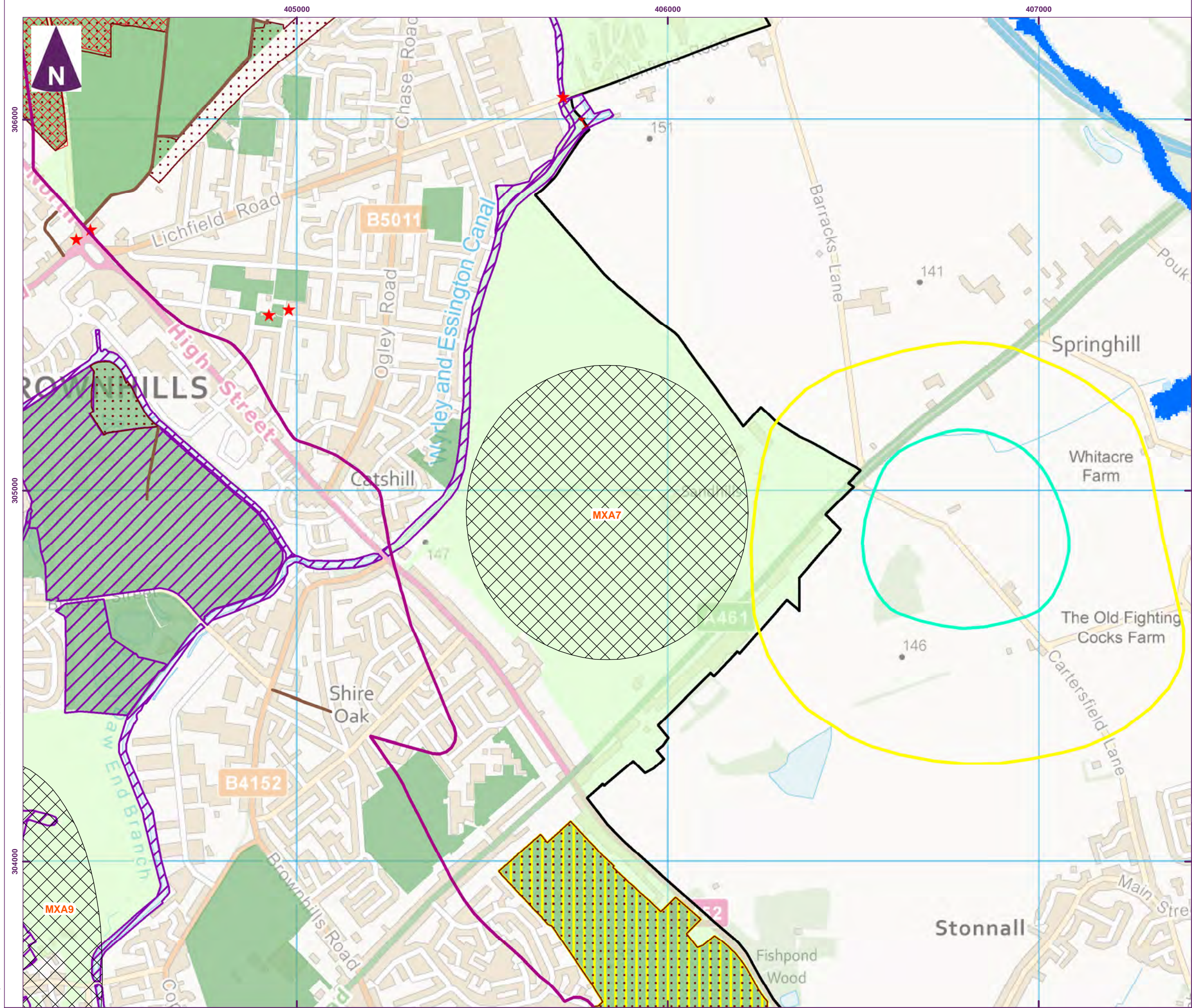
Assessment Pro-Forma

D: Sandhills Area Options

Site Details	
SAD Minerals Reference	MXA7
Site Name	Sandhills
Mineral Type	Sand & Gravel
SAD Option Type	Potential Area of Search
Viability and Delivery Assessment	
Requirements	Consultant's Comments
1	<p>Site Visit/ Review of Available Information</p> <p>Covers the area of Home Farm and Sandhills Farm off the A461 Lichfield Road in Shire Oak on the eastern boundary of the Walsall administrative area, that which borders Lichfield District in Staffordshire. The area consists mainly of open farmland which extends beyond the borough boundary into Staffordshire. There are isolated dwellings/ farm buildings at Home Farm/ Sandhills House, Sandhills Farm, also Lodge and Shire Oak House fronting onto Lichfield Road (A461) and ribbon development (housing) along the southern edge of the area, fronting onto Chester Road (A452). The Anglesey Branch of the Wyrley and Essington Canal provides a clearly-defined boundary between this area and the urban areas to the north. Area is located in close proximity to Shire Oak Quarry, which is located on the opposite side of the A461 Lichfield Road. The quarry is in Lichfield District in Staffordshire, although it is adjacent to housing fronting Lichfield Road in Walsall, and the access to the quarry is off Chester Road (A452), also in Walsall. As such, Staffordshire County Council is the relevant minerals planning authority for the quarry, whilst Walsall Council is the local highway authority.</p> <p>The AOS is located within the Green Belt as well as a BGS sand and gravel resource area and has been identified by the Council following a Call for Sites submission (CFS25) in 2011 for housing.</p>

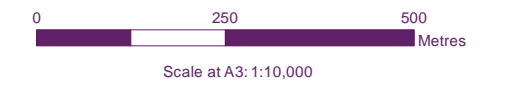
Site Details		
SAD Minerals Reference		MXA7
Site Name		Sandhills
Mineral Type		Sand & Gravel
SAD Option Type		Potential Area of Search
2	Critical Appraisal of Option identified	Following the Issues and Options consultation in 2013, the site promoter firmed up their proposals for the Sandhills site and expressed the view that it was not suitable for mineral extraction, without commenting on the potential of the resource present or the feasibility of working that resource.
3a	Mineral Resource Present – estimated extent of winnable mineral resource present (million tonnes)	Potentially viable sand and gravel resources in the potential AOS have been identified based on the BGS mineral resource mapping and the area's proximity to existing Shire Oak Quarry, although it is not possible to provide an indicative estimate of the potential resource at present. It is anticipated that such information would become available through either pre-application discussions and/or with the submission of a planning application, or at the discretion of a potential mineral operator / site promoter with an interest in extraction the potential mineral resource.
3b	Estimated Annual Production – estimated annual throughput/ production of primary, secondary or recycled aggregate (tonnes per annum)	
4	Constraints	As well as the proximity to housing and the potential cumulative impacts of quarrying in the wider Shire Oak area which would require close liaison with both Lichfield District Council and Staffordshire County Council, other key constraints that would need to be taken into account in this AOS include: <ul style="list-style-type: none"> • Impacts on air quality; • Access constraints and impacts on highway capacity; • Risk of surface water flooding; • Impacts on biodiversity and in particular the Anglesey Branch Canal SLINC;

Site Details		
SAD Minerals Reference	MXA7	
Site Name	Sandhills	
Mineral Type	Sand & Gravel	
SAD Option Type	Potential Area of Search	
		<ul style="list-style-type: none"> • Impacts on local landscape character; and • Potential impacts on archaeology.
5	Key Delivery Requirements	Key to the viability and deliverability of any minerals extraction in this AOS is whether there is support from the landowner and/or the minerals to develop a viable sand and gravel extraction operation. The landowner has already indicated that he does not consider the Sandhills site suitable for sand and gravel and prefers alternative land uses, such as the partial retention in agricultural use, and partial development with housing; the latter which is likely to be more profitable and provide shorter-term gains than a mineral extraction scheme.
6	Conclusions	Key to the viability and deliverability of any minerals extraction in this AOS is whether there is support from the landowner and/or the minerals to develop a viable sand and gravel extraction operation. The landowner has already indicated that he does not consider the Sandhills site suitable for sand and gravel and prefers alternative land uses, such as the partial retention in agricultural use, and partial development with housing; the latter which is likely to be more profitable and provide shorter-term gains than a mineral extraction scheme.



- Key**
- Minerals Area of Search
 - Walsall borough boundary
 - Source Protection Zone 1
 - Source Protection Zone 2
 - Source Protection Zone 3
 - Local Listed Building
 - Listed Building (Extent)
 - Public Rights of Way
 - SINC's
 - SLINC
 - SSSI's
 - Local Nature Reserves
 - Flood Zone 3
 - Flood Zone 2
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites: Ancient Woodland; Scheduled Monument and Special Areas of Conservation.



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Figure A4
Sandhills Area Options Constraints
Figure

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Walsall SAD & AAP Minerals Study 2015

Assessment Pro-Forma

E: Stubbers Green & Walsall Wood Area Options

Site Details				
SAD Minerals Reference		MXA3	MXP3	AR1 (MI1)
Site Name		Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type		Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
Viability and Delivery Assessment				
Requirements		Consultant's Comments		
1	Site Visit/ Review of Available Information	<p>Located in the Stubbers Green Road area of Aldridge and covers an area of nearly 74 hectares (ha).</p> <p>Located in the Green Belt, the area consists of open land dominated by active permitted clay extraction sites (Atlas and Sandown Quarries (MP2 and MP7) and associated brickworks, bisected by Stubbers Green Road, and open space (Recordon</p>	<p>Located immediately to the south of Stubbers Green Road and to the north of the existing Atlas Quarry (MP2). Located in the Green Belt, the nearly 8.5 ha site lies within a proposed area of search as identified in the Black Country Core Strategy (Policy MIN3) and is also designated as a SINC in the adopted Walsall UDP. As well as being within a BGS brick clay resource area, the site has been identified as a result of</p>	<p>Located on the corner of Coppice Lane and Brickyard Road and covers an area of just over 1 hectare (ha). Although currently vacant, the land has planning permission for CDEW recycling and was previously part of the Aldridge Brickworks stockyard. The Aldridge Brickworks and Interserve MRF are located to the south of the site, whilst the Vigo/Utopia leachate treatment and landfill gas plant are located to the north on the opposite side of</p>

Site Details			
SAD Minerals Reference	MXA3	MXP3	AR1 (MI1)
Site Name	Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type	Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
	<p>Land (MXP3) used as horse grazing and for other recreational purposes. The latter forms part of a network of linked open spaces extending to the north, which provide mainly grassland/ wetland habitats and recreational land uses. The Area of Search adjoins residential development to the west, as well as the Aldridge employment area and Former Bace Groundworks Site (AR1) to the south and east. Located in the Green Belt, the potential AOS reflects that which has been identified in the Black Country Core Strategy (Policy MIN3) as well as the mineral safeguarding</p>	<p>a Call for Sites Submission in 2011 (CH94) as a potential extension to Atlas Quarry and is currently subject to a planning application (14/016/CM). A decision is anticipated towards the end of January 2015.</p> <p>The site consists of open land used mainly for horse grazing and forms part of a network of linked open spaces extending to the north, which provide mainly grassland/ wetland habitats and recreational land uses. Areas immediately to the south and east, on either side of Stubbers Green Road, are mainly occupied by active clay extraction sites and brickworks.</p>	<p>Coppice Lane. The site is located on the fringes of the Aldridge employment area as identified in the Black Country Core Strategy (Policy EMP3). Until fairly recently the site was being marketed by agents GVA; however, it would appear that the site is no longer listed as being available, which would suggest the site as either having been sold or withdrawn from sale by the owner. The site has been identified in the SAD Issues and Options as a Mineral Infrastructure Site (MI1) in that the site is vacant with planning permission for aggregate recycling.</p>

Site Details			
SAD Minerals Reference	MXA3	MXP3	AR1 (MI1)
Site Name	Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type	Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
	area in the former Walsall UDP 2005.		
2a	Feedback from Atlas Quarry/ Recordon Land Case Officer.	Not applicable	The planning application for the proposed Atlas Quarry extension is still being considered with a decision anticipated towards the end of January 2015. Should planning permission for the proposed extension to Atlas Quarry at this site be granted, there would no longer be a need to identify the site as a potential site allocation in the SAD.
2b	Critical Appraisal of Options identified	It is considered that the identification of the Stubbers Green AOS (MXA3) would contribute towards seeking to secure the future supply of brick clay in Walsall, in that the potential brick clay resources within this area would be sufficient to provide a 25-year supply to both the Aldridge and Atlas Brickworks. The area includes the proposed extension to Atlas Quarry, which as well as being a	Despite extant planning permission for aggregates recycling, any new operations on the site would need to take account of the site's size; at only 1.08 ha the site is relatively small with apparent little scope for

Site Details					
SAD Minerals Reference		MXA3	MXP3	AR1 (MI1)	
Site Name		Stubbers Green	Recordon Land	Former Bace Groundworks	
Mineral Type		Brick Clay	Brick Clay	Aggregate Recycling	
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	
		potential site allocation (MXP3) is also subject to an extant planning permission.		expansion given the surrounding minerals and waste land uses. The site has been marketed for some time and there is no current evidence of interest.	
3a	Mineral Resource Present – estimated extent of winnable mineral resource present within the area (million tonnes)	5.76 million tonnes Source: Based on sum of estimated remaining reserves and estimated resource within expanded Atlas Quarry/ Recordon Land at 31.03.14 (from application 14/0619/CM).	5.10 million tonnes Source: Estimated resource within Atlas Quarry/ Recordon Land combined @ 31.03.14 = 5.1 million tonnes (from application 14/0619/CM). It is not possible to estimate actual resource within Recordon Land only from the evidence submitted.	Not applicable.	
3b	Estimated Annual Output – estimated annual throughput/ output of primary, secondary or recycled	265,000 TPA Source: Based on sum of estimated annual extraction rate at Sandown Quarry and estimated annual requirement	200,000 TPA Source: Estimated annual requirement to serve Aldridge and Atlas Brickworks combined from expanded Atlas Quarry/	10,000 TPA Source: Conservative estimate of annual production achievable on site, based on average (mean) annual throughput achieved when	

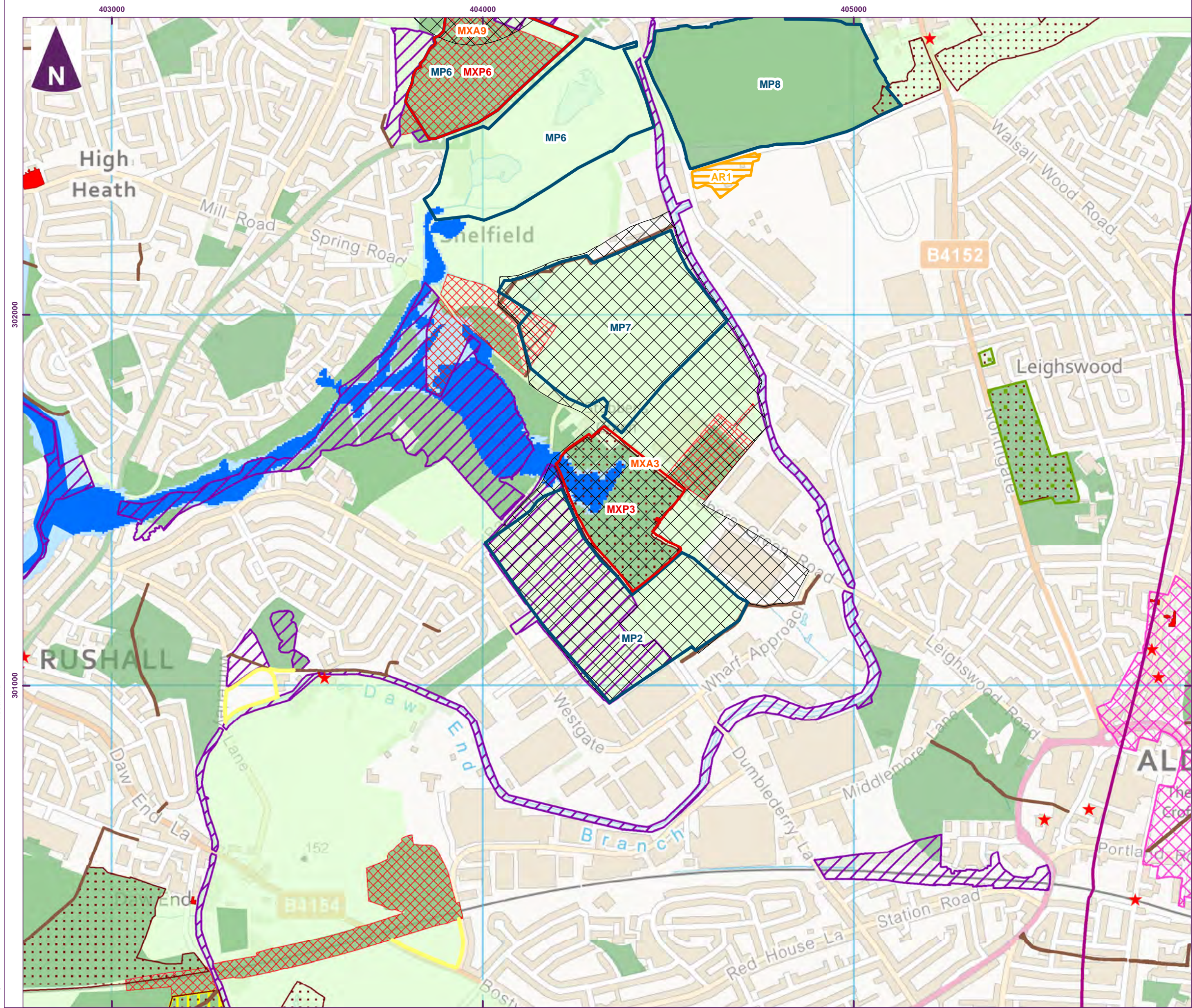
Site Details					
SAD Minerals Reference		MXA3	MXP3	AR1 (MI1)	
Site Name		Stubbers Green	Recordon Land	Former Bace Groundworks	
Mineral Type		Brick Clay	Brick Clay	Aggregate Recycling	
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation	
	aggregate (tonnes per annum)	for Aldridge and Atlas Brickworks from expanded Atlas Quarry/ Recordon Land going forward (from application 14/0619/CM, see Supporting Statement, 4.3.2). As the permitted reserves become increasingly depleted, it is likely that the annual output will decrease with time.	Recordon Land going forward, from application 14/0619/CM (see Supporting Statement, 4.3.2). Current annual production from Atlas Quarry (for Atlas Brickworks only) is around 120,000 TPA according to the application.	the site was in use, from Environment Agency Waste Data Interrogator returns 2009 - 2011. Maximum throughput achieved during this period was nearly 27,000 tonnes in 2012. This is significantly less than permitted capacity (< 75,000 TPA) and capacity assumed in application 07/2477/FL/E6 (i.e. up to 74,950 TPA). Site had Environment Agency inert waste transfer station permit, but planning permission allows on-site recycling.	
4	Constraints	Proximity to housing and any cumulative impacts from quarrying in the area given two existing quarries as well as any potential effects relating to the	Proximity to housing and any cumulative impacts from quarrying in the area given the proximity to two existing quarries as well as any potential effects	Physical constraints, including site size which may have constrained previous operations at the site and contributed to the closure of the previous facility on site. Although the site is surrounded by other	

Site Details			
SAD Minerals Reference	MXA3	MXP3	AR1 (MI1)
Site Name	Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type	Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
	<p>legacy of historic mining and quarrying in the area.</p> <p>Impacts on biodiversity given the network of linked wetland and grassland habitats, parts of which would be destroyed by any future brick clay extraction, particularly at Atlas Quarry.</p> <p>Potential flood risk and hydrology impacts given that part of the Recordon Lane site (MXP3) is within Flood Zones 2 and 3 and as such there is a medium/high probability of fluvial flooding in addition to significant risk of surface water flooding during extreme rainfall events. Proposals for mineral extraction would therefore require effective pollution</p>	<p>relating to the legacy of historic mining and quarrying in the area.</p> <p>Impacts on biodiversity given the network of linked wetland and grassland habitats, parts of which would be destroyed by any future brick clay extraction at Atlas Quarry.</p> <p>Potential flood risk and hydrology impacts given that the site is within Flood Zones 2 and 3 and as such there is a medium/high probability of fluvial flooding in addition to significant risk of surface water flooding during extreme rainfall events.</p> <p>Proposals for restoration and after use particularly in relation to existing habitats, water and</p>	<p>minerals and waste uses, including the Interserve MRF and Aldridge Brickworks to the south and Coppice Lane to the north with the Vigo/Utopia leachate treatment and landfill gass plant beyond that, there appears little scope for expansion.</p>

Site Details			
SAD Minerals Reference	MXA3	MXP3	AR1 (MI1)
Site Name	Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type	Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
	<p>control and surface water management regimes to minimise any risks of flooding and pollution of the ground or nearby water bodies.</p> <p>Proposals for restoration and after use particularly in relation to existing habitats, water and flood management issues in the wider area.</p>	<p>flood management issues in the wider area.</p>	
5	Key Delivery Requirements	<p>Key constraints to the viability and deliverability of potential brick clay extraction within the AOS include potential impacts on hydrology and wetland habitats, as well as potential impacts on biodiversity and ecology specifically in relation to the designated SINC and the various wildlife corridors within the area.</p>	<p>Key issues which would need to be taken into consideration as to whether the site could be viable and deliverable include:</p> <ul style="list-style-type: none"> Proximity to housing and any cumulative impacts from quarrying in the area given the proximity to two existing quarries as well as any
			<p>Key constraints to deliverability and viability include the size of the site and the limited scope for any further expansion due to the surrounding minerals and waste uses as well as the interest and willingness of the minerals and/or waste industry to bring the site forward to aggregate recycling. The site has been marketed for some</p>

Site Details			
SAD Minerals Reference	MXA3	MXP3	AR1 (MI1)
Site Name	Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type	Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
		<p>potential effects relating to the legacy of historic mining and quarrying in the area;</p> <ul style="list-style-type: none"> • Impacts on biodiversity given the network of linked wetland and grassland habitats, parts of which would be destroyed by any future brick clay extraction at Atlas Quarry; • Potential flood risk and hydrology impacts given that the site is within Flood Zones 2 and 3 and as such there is a medium/high probability of fluvial flooding in addition to significant risk of surface water flooding during extreme rainfall events; and • Proposals for restoration and after use particularly in 	time and there is no current evidence of any interest in the site.

Site Details				
SAD Minerals Reference		MXA3	MXP3	AR1 (MI1)
Site Name		Stubbers Green	Recordon Land	Former Bace Groundworks
Mineral Type		Brick Clay	Brick Clay	Aggregate Recycling
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Potential Site Allocation
			relation to existing habitats, water and flood management issues in the wider area.	
6	Conclusions	Key constraints to the viability and deliverability of potential brick clay extraction within the AOS include potential impacts on hydrology and wetland habitats, as well as potential impacts on biodiversity and ecology specifically in relation to the designated SINC and the various wildlife corridors within the area.	Key constraints to the viability and deliverability of brick clay extraction at this site include potential impacts on hydrology and wetland habitats, as well as potential impacts on biodiversity and ecology specifically in relation to the designated SINC and various wildlife corridors in the wider area. Should planning permission for the proposed extension to Atlas Quarry at this site be granted, there would no longer be a need to identify the site as a potential site allocation in the SAD.	Key constraints to deliverability and viability include the size of the site and the limited scope for any further expansion due to the surrounding minerals and waste uses as well as the interest and willingness of the minerals and/or waste industry to bring the site forward to aggregate recycling. The site has been marketed for some time and there is no current evidence of any interest in the site.



Key

- Potential New Mineral Site
- Permitted Mineral Site
- Minerals Area of Search
- Potential Aggregate Recycling Sites
- Walsall borough boundary
- Source Protection Zone 3
- ★ Local Listed Building
- Listed Building (Extent)
- SLINC
- Public Rights of Way
- SINC's
- SLINC (Hedge)
- SLINC
- SSSI's
- Conservation Area
- Local Nature Reserves
- Flood Zone 3
- Flood Zone 2
- Ancient Woodland
- Open Space
- Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites:
Scheduled Monument and Special Areas of Conservation.

Scale at A3: 1:10,000

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Development Options

Figure A5
Stubbers Green & Walsall Wood
Area Options Constraints Figure

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**Walsall SAD & AAP Minerals Study 2015:
Assessment Pro-Forma**

F: Highfields North Area Options

Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
Viability and Delivery Assessment		
Requirements	Consultant's Comments	
1	Site Visit / Review of Available Information	<p>Area incorporates land between Walsall Road, Hall Lane and Green lane in the Shelfield area of the Borough. Located within the Green Belt, the AOS consists predominantly of open land used either for agriculture or open space. Areas to the south of Green Lane are mainly used as informal open space and/or pasture/horse grazing land, with the larger fields north-east of Green Lane used either for arable or pasture uses. More recent land uses include: a sewage works to the north of Green Lane; and recreational land uses adjoining the urban areas to the south, including ribbon development of both</p>
		<p>Located to the north of the A461 Lichfield/Walsall Road, in the Shelfield area of Walsall. Covering an area of just over 18 ha, the site comprises informal open space and horse grazing land. Agricultural land is located immediately to the north-west of the site and ribbon development consisting of both housing and commercial uses to the south-east along the frontage of Walsall Road (A461).</p>

Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
	<p>housing and commercial uses to the south-east, along the frontage of the A461 Walsall Road.</p> <p>The area is identified within a BGS brick clay (Etruria Formation) resource area and was identified by the Council in the SAD Issues and Options report as a potential second area of search for brick clay extraction (Minerals Options 3b) as well as incorporating three potential housing sites within the Green Belt following Call for Site submissions in 2011 (CH14, CH43, and CH66). The area also includes the potential site allocation at Highfields North (MXP6).</p>	
2a	Feedback from Highfields North Council Contact	<p>Not applicable.</p> <p>The site has been identified by the Council as falling within a BGS brick clay resources area and is subject to a 1954 unimplemented 'dormant' planning permission for minerals extraction (EB593)¹ and a 1977 approved working plan (BA5827). In November</p>

¹ A 1998 proposal to revoke the old mineral permission (conditional on implementation of coal and clay extraction on another site) appears not to have been taken forward.

Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
		2014, the Council received Prior Notification of proposed exploratory test drilling on the site; however, it is not clear whether this has taken place and if so, whether the outcome of this has been positive in terms of identifying the existence of winnable brick clay resources.
2b	Critical Appraisal of Options identified	<p>With regards to identifying a long-term supply of brick clay for Sandown Brickworks, the review of potential brick clay AOS and site allocations supports the Minerals Option 3b identified in the SAD Issues and Options Report; namely to identify an Area of Search for brick clay to the north of the A461 (i.e. MXA9). The complex mosaic of wetland habitats which make up the Jockey Fields SSSI, which would be largely destroyed if the Highfields North site was to be worked, would be very difficult to replicate through compensatory provision off-site, translocation or restoration following completion of mineral working. The identification of a wider AOS north of the A461 would enable extraction of brick clay outside the Jockey Fields SSSI, allowing for an appropriate but significant 'buffer' between any potential extraction areas and the SSSI, and thereby providing justification for resisting working within the SSSI at Highfields North. The provision of an appropriate stand-off area around the SSSI, acknowledging that the habitats outside the SSSI boundary are of similar type although of a lesser quality and designated a SLINC, and working in these areas could impact on the SSSI, will be a key consideration in terms of the viability of any future working of brick clay in this area.</p>

Site Details			
SAD Minerals Reference		MXA9	MXP6 (MP9)
Site Name		Land North of A461	Highfields North
Mineral Type		Brick Clay	Brick Clay
SAD Option Type		Potential Area of Search	Permitted Mineral Extraction Site
3a	Mineral Resource Present – estimated extent of winnable mineral resource present within the area (million tonnes)	Other than the 4.94 mt potential brick clay resource present within the Highfield North potential site (MXP6), the potential resources within the proposed AOS is unknown at present. It is anticipated such information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator/promoter.	4.94 MT Source: Based on information provided with approved working plan BA5827 (1977). This comprises a five-phase working programme lasting around 19 years, involving extraction of a total of around 3,355,554 cubic yards/ 4,865,552 tons (imperial) of clay, excluding overburden (see Table No. 4). This equates to around 2,565,408 cubic metres/ 4,943,626 tonnes (metric). ²
3b	Estimated Annual Output – estimated annual throughput/output of primary, secondary or recycled aggregate (tonnes per annum)	This information cannot be determined at this stage and it is anticipated such information would only become available either through pre-application discussions or at a planning application stage from a potential mineral operator/promoter.	200,000 TPA (@ 25-years) Source: Based on information provided with approved working plan BA5827 (1977). This comprises a five-phase working programme lasting around 19 years, involving extraction of a total of around 3,355,554 cubic yards/ 4,865,552 tons (imperial) of clay, excluding overburden (see Table

² This has been worked out using the following conversion formulae: 1 cubic yard/1.3080 = 1 cubic metre – see: <http://www.metric-conversions.org/volume/cubic-yards-to-cubic-meters.htm> and 1 imperial (“long”) ton = 1.0160463 metric tonnes – see: <http://www.weightconversions.org/metric-imperial.htm?r=y>. All figures have been rounded to the nearest cubic metre/ tonne.

Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
		<p>No. 4). This equates to around 2,565,408 cubic metres/ 4,943,626 tonnes (metric).³</p> <p>While the estimated tonnage of clay to be extracted in each phase varies, if a 19-year working life is assumed, this works out at an average (mean) extraction rate of 260,200 tonnes per annum (TPA). However, if a 25-year working period is assumed (in line with the requirement of NPPF paragraph 146) this would work out at around 197,760 TPA, which has been rounded to 200,000 TPA to give an approximate annual production rate.</p>
4	Constraints	<p>Potential constraints to brick clay extraction in the AOS include the likely need for highway improvements including a new access of the A461 Lichfield Road and improvements to the A461 corridor especially in relation to any potential future extraction at Highfields North. In addition, highway capacity and congestion are a potential constraint to</p> <p>Other than a willingness by the minerals industry to bring the site forward for development, key constraints to potential extraction of brick clay resources include:</p> <ul style="list-style-type: none"> • Proximity to existing and proposed housing and community facilities as well as commercial/recreational properties – this

³ See previous footnote.

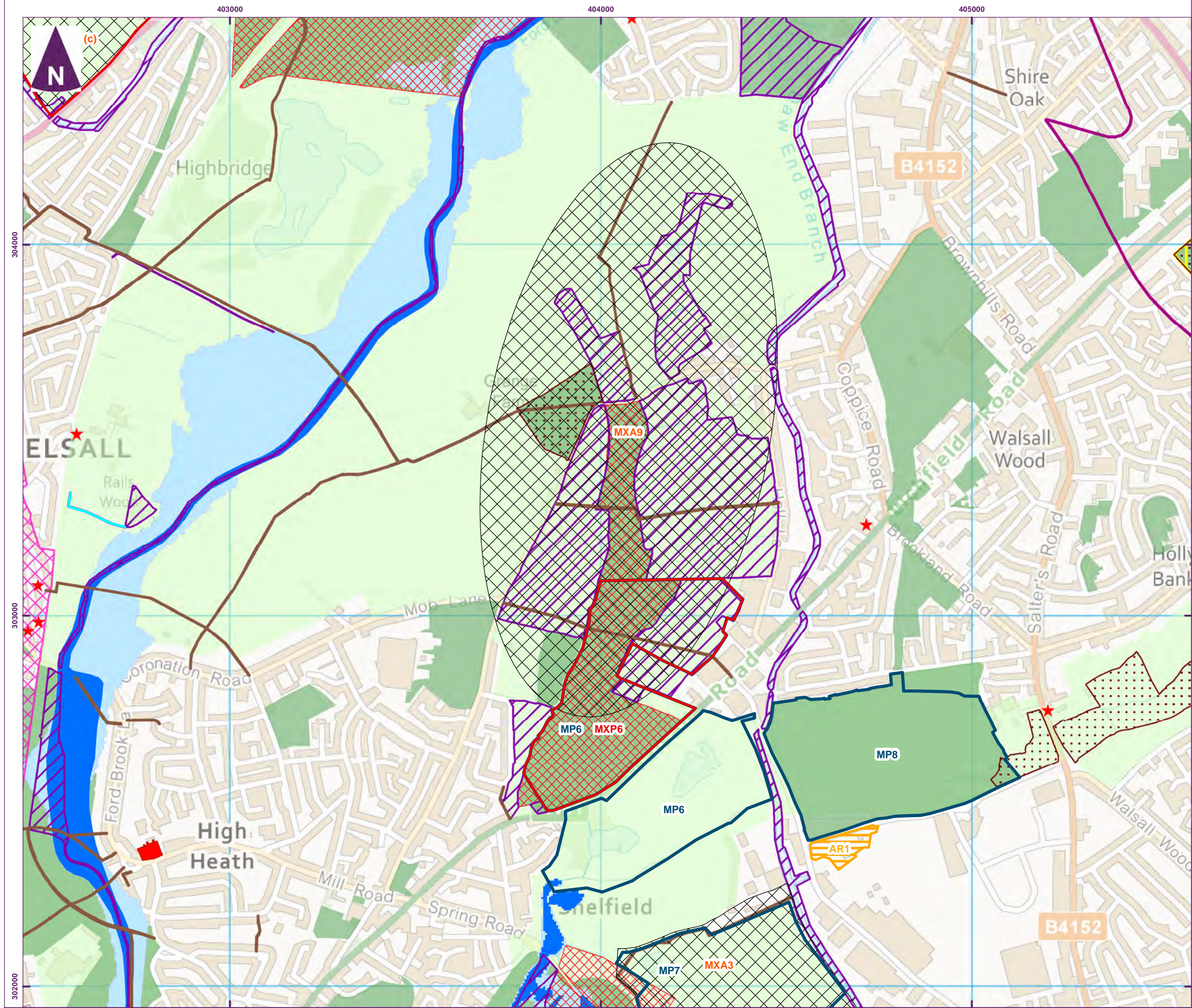
Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
	<p>new development in the A461 and A5 corridors, not least with regards to potential impacts on air quality and in particular the AQMA of NO₂ which has been declared for the whole Walsall borough. Other constraints to be taken into consideration include:</p> <ul style="list-style-type: none"> • Proximity to existing/proposed housing and community facilities as well as commercial/recreational properties; • Impacts on agricultural land and holdings – some of the agricultural land in the northern half of the proposed AOS is classified as Grade 2 and 3a according to the current Agricultural Land Classification and as such potential impacts on ‘best and most versatile agricultural land’ would have to be evaluated; • Legacy of historic mining and quarrying; • Impacts on PROWs; • Flood risk and hydrology; • Impacts on biodiversity and geological conservation; 	<p>includes the neighbouring Highfield Farm, residential properties and church on Walsall Road as well as the Horse & Jockey public house, Bournevale Motors car showroom, and Baron’s Court hotel</p> <ul style="list-style-type: none"> • Legacy of historic mining and quarrying, in particular potential ground problems; • Impacts on air quality – an AQMA for NO₂ covers the whole of Walsall borough. Statutory limit values for NO₂ are already being exceeded in sections of the A461 and A5 corridors. Depending on the direction of haulage, a new quarry at the potential site allocation is likely to generate significant net additional HGV movements in these corridors adding to congestion and traffic emissions, which could make it more difficult to meet statutory obligations to reduce emissions; • Access constraints and impacts on highway capacity – a new access would be required onto

Site Details		
SAD Minerals Reference	MXA9	MXP6 (MP9)
Site Name	Land North of A461	Highfields North
Mineral Type	Brick Clay	Brick Clay
SAD Option Type	Potential Area of Search	Permitted Mineral Extraction Site
	<ul style="list-style-type: none"> • Impacts in local landscape character; and • Potential impacts on archaeology. 	<p>the A461, an already congested route, which may require improvements to that transport corridor. Some junction improvements in that corridor are already planned although these proposals would not have been designed to accommodate a new mineral extraction site. Potentially costs of providing access and further improvements to the junctions, over and above that already planned (if required), may impact on viability;</p> <ul style="list-style-type: none"> • Impacts on biodiversity and geological conservation – this area has significant value for biodiversity. Most of the Highfields North site (MXP6) and a substantial part of the potential Area of Search (MXA9) have been designated as a SSSI (Jockey Fields), and much of the surrounding area is designated as a SLINC (Jockey Fields), forming part of the SSSI consultation area. The designated sites contain a variety of mainly wetland habitats, including well-grazed damp pasture, neglected grassland, fen and mire, and

Site Details			
SAD Minerals Reference		MXA9	MXP6 (MP9)
Site Name		Land North of A461	Highfields North
Mineral Type		Brick Clay	Brick Clay
SAD Option Type		Potential Area of Search	Permitted Mineral Extraction Site
			<p>are near to Highfields South (MP6) to the south of Walsall Road (A461), which is being restored to support wetland, grassland and woodland habitats of similar type, and Daw End Branch Canal SLINC which runs to the east. Clay extraction in this area is likely to lead to long-term losses of habitats, which may not be easy to compensate for, given the complexity of the habitats present and the difficulty of creating/ re-creating this type of habitat. Mineral extraction is also likely to have indirect impacts on habitats in the surrounding area. Working plans and restoration programmes will need to be informed by ecological and hydrological assessments to identify the most effective strategy for the site. This should include retention of as much habitat as possible for as long as possible, provision of compensation for unavoidable habitat losses, identifying opportunities for geological conservation, minimising impacts on biodiversity</p>

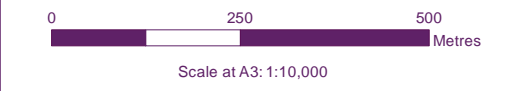
Site Details			
SAD Minerals Reference		MXA9	MXP6 (MP9)
Site Name		Land North of A461	Highfields North
Mineral Type		Brick Clay	Brick Clay
SAD Option Type		Potential Area of Search	Permitted Mineral Extraction Site
			<p>in the surrounding area, and restoration to provide high quality habitats of similar value to those lost once extraction has been completed;</p> <ul style="list-style-type: none"> • Impacts on PROWs; • Flood risk and hydrology; • Impacts in local landscape character; and • Potential impacts on archaeology.
5	Key Delivery Requirements	Key to the viability and deliverability of any potential brick clay extraction proposals within the AOS will be whether there is an interest by the minerals industry to bring such an operation forward as well as the willingness of the landowner(s) to pursue such an operation as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing.	A number of factors are key to the viability and deliverability of the site as a potential brick clay extraction site, not least the willingness of land owners to consider mineral extraction as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing. Other factors include the requirements for a new highways access and likely highway improvements in an already congested A461 corridor and the potential loss of biodiversity with most of the site being designated a SSSI.

Site Details			
SAD Minerals Reference		MXA9	MXP6 (MP9)
Site Name		Land North of A461	Highfields North
Mineral Type		Brick Clay	Brick Clay
SAD Option Type		Potential Area of Search	Permitted Mineral Extraction Site
6	Conclusions	<p>Key to the viability and deliverability of any potential brick clay extraction proposals within the AOS will be whether there is an interest by the minerals industry to bring such an operation forward as well as the willingness of the landowner(s) to pursue such an operation as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing.</p>	<p>A number of factors are key to the viability and deliverability of the site as a potential brick clay extraction site, not least the willingness of land owners to consider mineral extraction as opposed to other alternative land uses such as the retention for agriculture or development with more profitable land uses with potential for shorter-term gains such as housing. Other factors include the requirements for a new highways access and likely highway improvements in an already congested A461 corridor and the potential loss of biodiversity with most of the site being designated a SSSI.</p>



- Key**
- Potential New Mineral Site
 - Permitted Mineral Site
 - Minerals Area of Search
 - Potential Aggregate Recycling Sites
 - Walsall borough boundary
 - Source Protection Zone 3
 - ★ Local Listed Building
 - Listed Building (Extent)
 - SLINC (Hedge)
 - SLINC
 - Public Rights of Way
 - SINC's
 - SSSI's
 - Conservation Area
 - Local Nature Reserves
 - Flood Zone 3
 - Flood Zone 2
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites: Ancient Woodland; Scheduled Monument and Special Areas of Conservation.



Walsall Council
Review of Evidence Base
for Minerals and Viability
and Deliverability of Mineral
Development Options

Figure A6
Highfields North Area Options
Constraints Figure

**Walsall SAD & AAP Minerals Study 2015:
Assessment Pro-Forma**

G: Yorks Bridge & Brownhills Area Options

Site Details					
SAD Minerals Reference		MXA4 (c)	MXP4	MXP7 (MP5)	
Site Name		Yorks Bridge	Land at Yorks Bridge	Brownhills Common	
Mineral Type		Coal & Fireclay	Coal & Fireclay	Coal & Fireclay	
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site	
Viability and Delivery Assessment					
Requirements		Consultant's Comments			
1	Site Visit/ Review of Available Information	Located in the northern part of the Borough on land to the north of the A4124 Wolverhampton Road and to the south-west of the A452 Chester Road, off Engine Lane/Pelsall Road in Brownhills. The area falls within an identified area of search in the Black Country Core Strategy (Policy MIN3) as well as covering sites which have been put forward in response to the SAD Issues and Options consultation.	Located off Pelsall Road, in the Brownhills area of the Borough. Located within the Green Belt, the site falls within a proposed area of search as identified by the Black Country Core Strategy (Policy MIN3) as well as a Coal Authority surface coal resource area. It is part of an area of agricultural land lying immediately to the north and west of the Wyrley & Essington Canal and Pelsall	Located off Coppice Lane in the Brownhills area of the Borough. Located within the Green Belt, the site falls within a proposed area of search as identified by the Black Country Core Strategy (Policy MIN3) as well as a Coal Authority surface coal resource area. Furthermore, the site is subject to an unimplemented 'dormant' planning permission for mineral extraction (EB233) from 1954, which could be activated at any time, subject to the	

Site Details			
SAD Minerals Reference	MXA4 (c)	MPX4	MPX7 (MP5)
Site Name	Yorks Bridge	Land at Yorks Bridge	Brownhills Common
Mineral Type	Coal & Fireclay	Coal & Fireclay	Coal & Fireclay
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site
	<p>Area covers a large area of open land lying immediately north and west of the Wyrley & Essington Canal and Pelsall Road (A4124), extending westwards beyond the borough boundary into Staffordshire. It is characterised by mainly arable fields enclosed by hedgerows, with areas of woodland, grassland and heathland adjacent to the canal and to the east, some of which forms part of an extensive area of common land extending northwards into Staffordshire which is used for information recreation and is managed as a nature reserve. Brownhills Common is part of an important area of lowland heathland which</p>	<p>Road (A4124), extending westwards beyond the borough boundary into Staffordshire. The site is characterised by mainly arable fields enclosed by hedgerows, with a small woodland area fringing the eastern boundary adjacent to the A4124.</p>	<p>submission of a suitable schedule of modern conditions.</p> <p>The site forms part of an extensive area of open land extending northwards into neighbouring Staffordshire. It lies to the south of the A452 Chester Road and comprises areas of woodland and open grassland/heathland, which are used for informal recreation and are managed as a nature reserve. Brownhills Common is part of an important area of lowland heathland which extends beyond the borough boundary into parts of Staffordshire. The part of Brownhills Common to the north of the A452 was designated a SSSI in 2010, whilst the area to the south of A452 which includes the</p>

Site Details					
SAD Minerals Reference		MXA4 (c)	MPX4	MPX7 (MP5)	
Site Name		Yorks Bridge	Land at Yorks Bridge	Brownhills Common	
Mineral Type		Coal & Fireclay	Coal & Fireclay	Coal & Fireclay	
SAD Option Type		Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site	
		<p>extends beyond the borough boundary into parts of Staffordshire. The part of Brownhills Common to the north of the A452 was designated a SSSI in 2010, whilst the area to the south of A452 which includes the potential site allocation is designated a SINC – Brownhills Common and The Slough. Furthermore, those parts of the Yorks Bridge area adjacent to Cannock Chase are close to the Cannock Extension Canal, which has been designated a SAC.</p>		<p>potential site allocation is designated a SINC – Brownhills Common and The Slough. Furthermore, the site is located close to the Cannock Extension Canal which has been designated a SAC.</p>	
2a	Feedback from Agents/ Owners	<p>As well as identifying an AOS for fireclay extraction at Yorks Bridge (MXA4) in the SAD Issues and Options Report reflecting that in the Black Country Core Strategy,</p>	<p>The site has been promoted by the landowner (St Modwen) with a preference for housing development in response to the Call for Sites Submission in</p>	<p>The site is being promoted by the landowner Wyrley Estates and the operator Potters Clay & Coal Company Ltd; the latter being the only known interested party in the</p>	

Site Details			
SAD Minerals Reference	MXA4 (c)	MPX4	MPX7 (MP5)
Site Name	Yorks Bridge	Land at Yorks Bridge	Brownhills Common
Mineral Type	Coal & Fireclay	Coal & Fireclay	Coal & Fireclay
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site
	<p>the Council identified three alternative options. Options MXA4(a) and MXA4(b) were based on areas put forward by landowners and/or operators during the preparation and examination of the Core Strategy, whilst the third option, the Council's Preferred Option, covers the maximum extent of these areas as well as two potential mineral extraction sites – Brownhills Common (MPX7(MP5)) and Land at Yorks Bridge (MPX4). The former is a site subject to a 'dormant' old mineral permission for clay and coal extraction, the latter as a Call for Sites submission in 2011 for a proposed variety of land uses</p>	<p>2011 although it has been acknowledged that there was a potential for mineral resources. Further supporting information was submitted by the landowner in December 2013 including a minerals assessment by consultants Alliance Planning, which concluded that mineral extraction is not economically viable in that the site is too small and constrained. The assessment did not however consider the potential for further land assembly, or that development of the site with other uses could compromise bringing forward a clay and</p>	<p>fireclay resources of the area, who use it to manufacture pot clay blends. Their main source of supply is currently a stockpile of extracted fireclay extracted from the former Birch Coppice site (MP3)¹, which is covered by the same 'dormant' old mineral permission as the potential site allocation. Extracted clay is currently being stockpiled on part of the permitted area of this site, to the north-east of their Swan Works factory, off Pelsall Road, where only limited stockpiled reserves remain.</p>

¹ As set out in the evidence provided to Walsall Council officers in 2007 during the preparation of the Black Country Core Strategy.

Site Details			
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Site Name	Yorks Bridge	Land at Yorks Bridge	Brownhills Common
Mineral Type	Coal & Fireclay	Coal & Fireclay	Coal & Fireclay
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site
	including mineral extraction although with a preference for housing. The resource area itself extends beyond Walsall's administrative boundary into Cannock Chase District.	coal extraction proposal elsewhere within the proposed Yorks Bridge and Brownhills AOS (MXA4(c)).	
2b	Critical Appraisal of Options identified	The AOS is significantly constrained not least by the nature conservation value of the area and the various environmental corridors and networks including the internationally recognised Cannock Extension Canal SAC, the Chasewater and Southern Staffordshire Heaths, Brownhills Common and The Slough and Clayhanger SSSIs, and Pelsall North Common SLINC. Any potential fireclay extraction, which can only realistically be extracted in	In light of the limited demand for fireclay within Walsall, due consideration may need to be given to the permanent revocation of the dormant permission at Brownhills should a viable proposal for fireclay extraction at this site come forward. If either proposal is pursued, this is very likely to be subject to restoration of the land to an equivalent habitat quality and an appropriate nature
			The only party to have expressed an interest in the fireclay resources in Brownhills area is the Potters Clay & Coal Company Ltd. Although test firing has apparently taken place, the results are not known and there is no evidence to suggest that the fireclay would meet the requirements of any brick manufacturers in Walsall or the surrounding areas. Furthermore, it is understood that the brickworks in Walsall are currently importing fireclay from various sources,

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	<p>conjunction with the overlaying coal using an opencast coal and clay extraction scheme, is likely to have significant adverse environmental effects and could cause indirect harm to the environmental designations.</p>	<p>conservation/ recreational end use in accordance with Policy MIN4 of the Black Country Core Strategy.</p>	<p>mainly from within Staffordshire, Shropshire and Telford and Wrekin. Whilst consumption rates vary, it would appear the Sandown Brickworks uses more fireclay and other buff clays than the other two factories.</p> <p>The Swan Works currently relies on the remaining stockpile of fireclay extracted from the former Birch Coppice site, adjacent to the factory, although these reserves are now limited. At the Black Country Core Strategy Examination however, the agent for Swan Works stated that the annual supply requirement for fireclay was only around 2,000 tonnes per annum. This is a relatively low amount and</p>

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				arguably this requirement could be meet from imports.
3a	Mineral Resource Present – estimated extent of winnable mineral resource present within the area (million tonnes)	<p>Fireclay: 1.63 MT</p> <p>Coal: 2.00 MT (approximately)</p> <p>Source:</p> <p>Fireclay – see BCCS Policy MIN3, paragraph 8.45 of Reasoned Justification. This is based on information provided by Wyrley Estate and Potters Clay & Coal Company agents at BCCS Examination (2010). The figure relates to the estimated fireclay resource within the Yorks Bridge site identified in British Coal prospecting notice registered as BC29976P, in Walsall, and excludes the resources in Staffordshire).</p>	Unknown	<p>Fireclay: 0.27 MT</p> <p>Coal: 0.03 MT</p> <p>Source: Working programme submitted in 1997 as part of application for working conditions BC48813P, and estimated clay reserves in Walsall indicated by Potters Clay & Coal Company agent at BCCS Examination (2010).</p>

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SAD Option Type		Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site	
		Coal – A letter to Staffordshire CC from British Coal dated 21.06.88 (included in the microfilmed information with British Coal prospecting notice registered as BC29976P) indicates that the Yorks Bridge prospecting site contains around 3 million tonnes of coal (including the areas in Staffordshire). Around 60% of the area identified in the Prospecting Notice is in Walsall, therefore pro-rata, the estimated coal resource in Walsall would be roughly 2 million tonnes.			
3b	Estimated Annual Output – estimated annual throughput/output of primary, secondary or recycled	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application discussions	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application	This information cannot be determined at this stage and it is anticipated the information would only become available either through pre-application discussions	

Site Details					
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Site Name		Yorks Bridge	Land at Yorks Bridge	Brownhills Common	
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SAD Option Type		Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site	
	aggregate (tonnes per annum)	or at a planning application stage from a potential mineral operator/site promoter.	discussions or at a planning application stage from a potential mineral operator/site promoter.	or at a planning application stage from a potential mineral operator/site promoter.	
4	Constraints	<p>As well as the significant environmental constraints on the AOS, other potential constraints to the viability and deliverability of new mineral extraction in this AOS are numerous and include:</p> <ul style="list-style-type: none"> • Proximity to housing; • Proximity to commercial properties; • Land ownership / difficulty of land assembly; • Legacy of historic mining and quarrying; • Impacts on air quality; 	<p>As well as the significant environmental constraints, other potential constraints to the viability and deliverability of new mineral extraction are numerous and include:</p> <ul style="list-style-type: none"> • Proximity to housing; • Proximity to commercial properties; • Land ownership / difficulty of land assembly; • Legacy of historic mining and quarrying; • Impacts on air quality; 	<p>As well as the significant environmental constraints, other potential constraints to the viability and deliverability of new mineral extraction are numerous and include:</p> <ul style="list-style-type: none"> • Proximity to housing; • Proximity to commercial properties; • Land ownership / difficulty of land assembly; • Legacy of historic mining and quarrying; • Impacts on air quality; 	

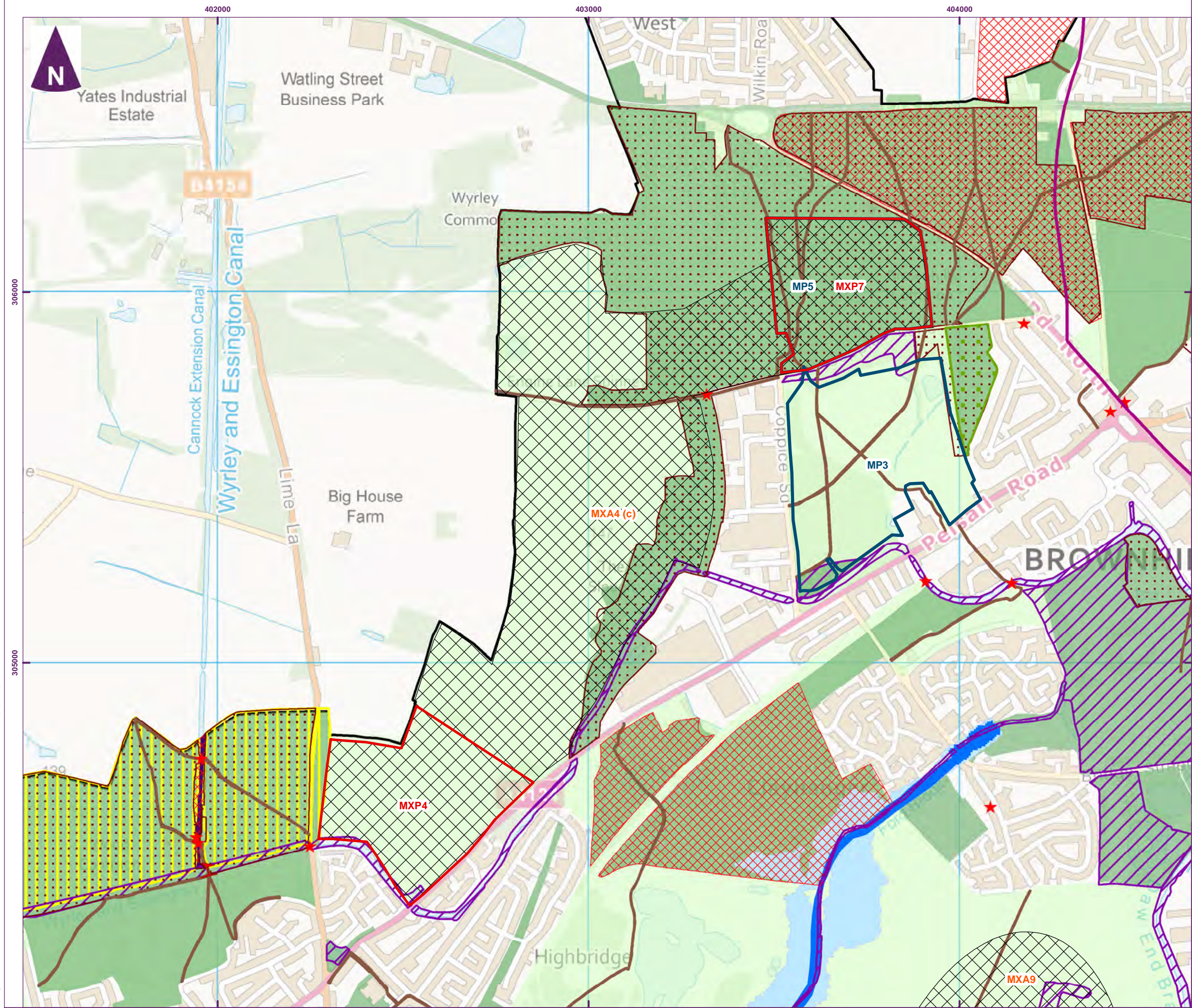
Site Details			
SAD Minerals Reference	MXA4 (c)	MPX4	MPX7 (MP5)
Site Name	Yorks Bridge	Land at Yorks Bridge	Brownhills Common
Mineral Type	Coal & Fireclay	Coal & Fireclay	Coal & Fireclay
SAD Option Type	Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site
	<ul style="list-style-type: none"> • Access constraints / impacts on highway capacity; • Impacts on PROWs; • Impacts on agricultural land and holdings; • Profitability compared to alternatives; • Flood risk / hydrology; • Impacts on biological and geological conservation; • Impacts of local landscape character; and • Potential impacts on archaeology. <p>A further constraint is in relation to the actual extraction of the fireclay itself. Given that the fireclay resources in the Borough only occur beneath coal seams, it is unlikely to be feasible to extract</p>	<ul style="list-style-type: none"> • Access constraints / impacts on highway capacity; • Impacts on PROWs; • Impacts on agricultural land and holdings; • Profitability compared to alternatives; • Flood risk / hydrology; • Impacts on biological and geological conservation; • Impacts of local landscape character; and • Potential impacts on archaeology. <p>A further constraint is in relation to the actual extraction of the fireclay itself. Given that the fireclay resources in the Borough only</p>	<ul style="list-style-type: none"> • Access constraints / impacts on highway capacity; • Impacts on PROWs; • Impacts on agricultural land and holdings; • Profitability compared to alternatives; • Flood risk / hydrology; • Impacts on biological and geological conservation; • Impacts of local landscape character; and • Potential impacts on archaeology. <p>A further constraint is in relation to the actual extraction of the fireclay itself. Given that the fireclay resources in the Borough only occur beneath coal seams, it is unlikely to be feasible to extract the fireclay</p>

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	the fireclay without extracting the coal. The two minerals would therefore have to be worked together using opencast/surface mining methods which are likely to have very significant environmental effects and could cause indirect harm to the numerous environmental designations in the area.	occur beneath coal seams, it is unlikely to be feasible to extract the fireclay without extracting the coal. The two minerals would therefore have to be worked together using opencast/surface mining methods which are likely to have very significant environmental effects and could cause indirect harm to the numerous environmental designations in the area.	without extracting the coal. The two minerals would therefore have to be worked together using opencast/surface mining methods which are likely to have very significant environmental effects and could cause indirect harm to the numerous environmental designations in the area.
5	Key Delivery Requirements	As well as the numerous constraints identified above and as demonstrated by the responses received to the SAD Issues and Options Report, there is known local opposition to any future mineral extraction in the Yorks	In addition to the significant environmental constraints, other potential constraints to the viability and deliverability of mineral extraction at the site include highway capacity and congestion in the A461
		The various constraints to potential extraction at this potential site allocation have been outlined in detailed in relation to the potential Yorks Bridge/Brownhills Common AOS above, not least the significant environmental constraints. As such,	

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		Bridge area. As such, the viability and deliverability of any potential future coal and fireclay extraction in the AOS will in part be dependent on how any likely habitat loss and any hydrological impacts can be appropriately mitigated as well as the willingness of landowners and/or minerals operators to bring forward mineral extraction proposals.	and A5 corridors which has contributed to air quality issues. In addition, planned highway improvements within the A461 Walsall corridor (including junction improvements) to improve capacity, reduce congestion and minimise transport emissions will not have been designed to accommodate additional HGV movements likely to be generated from new opencast clay and coal site and/or strategic clay stockpiling site in the Yorks Bridge/Brownhills Common area.	the key constraints to the viability and deliverability of potential mineral extraction at this site are considered to be whether there is a willingness by the landowner and/or minerals industry to bring forward a mineral extraction proposal at the site whilst seeking to ensure appropriate mitigation measures area incorporated into such proposals to address potential impacts on the various statutory environmental designations, local communities and businesses, as well as the local highway and canal network.	
6	Conclusions	Consultation and engagement with the coal industry by both the	Given the sites significant constraints, not least by the	Given the significant constraints, not least the nature conservation	

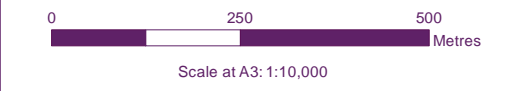
Site Details			
SAD Minerals Reference	MXA4 (c)	MXP4	MXP7 (MP5)
Site Name	Yorks Bridge	Land at Yorks Bridge	Brownhills Common
Mineral Type	Coal & Fireclay	Coal & Fireclay	Coal & Fireclay
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	<p>Council following the SAD Issues and Options consultation and Amec Foster Wheeler as part of this SAD & AAP Minerals Project, has established that there is currently no interest by the industry to bring forward any new coal extraction sites nationally. As such, the prospect of a potential site coming forward in a significantly constrained area such as Brownhills during the plan period is considered remote. It therefore follows that there is no prospect of fireclay being worked in this area, in that it is only generally economically feasible to extract fireclay as part of an opencast coal extraction scheme. Thus, it is concluded that there is</p>	<p>nature conservation value of the site and wider area and the various environmental corridors and networks, it is considered unlikely that any potential fireclay extraction would adequately mitigate against any likely significant adverse effects. It is considered that this in conjunction with an apparent lack of interest by the industry to bring forward potential extraction at the site, means it is unlikely that a viable proposals for fireclay extraction would come forward at this site.</p>	<p>value of the site and the wider area and the various environmental corridors and networks, combined with the ability to meet the limited demand for fireclay either from existing stockpiles or imports, it is considered unlikely that a viable proposals for fireclay extraction would come forward at this site.</p>

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SAD Option Type	Proposed Area of Search	Potential Site Allocation	Permitted Mineral Extraction Site
	no basis for identifying an Area of Search for fireclay in the SAD.		



- Key**
- Potential New Mineral Site
 - Permitted Mineral Site
 - Minerals Area of Search
 - Walsall borough boundary
 - Source Protection Zone 3
 - ★ Local Listed Building
 - Listed Building (Extent)
 - Public Rights of Way
 - SINC's
 - SLINC
 - SSSI's
 - SAC
 - Local Nature Reserves
 - Flood Zone 3
 - Flood Zone 2
 - Ancient Woodland
 - Open Space
 - Green Belt

The following environmental constraints have been included in the assessment but do not impact the potential new mineral sites:
 Conservation Areas and Scheduled Monument.



Walsall Council
 Review of Evidence Base
 for Minerals and Viability
 and Deliverability of Mineral
 Development Options



Figure A7
 Yorks Bridge & Brownhills Area
 Options Constraints Figure

