Warwickshire County Council

Minerals Core Strategy - Revised Spatial Options

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1 Introduction

Background to the Preparation of the Minerals Development Framework (MDF)

1.1 This is a new Local Development Framework document which re-assesses our work on the Issues and Options and Preferred Options reports produced in 2006-2007 and takes the plan forward to the next stage.

1.2 The document summarises where we are in the preparation of the Core Strategy, outlines changes we have made to the Minerals and Waste Development Scheme, sets out our revised spatial options, describes the main issues and includes the sites which have been put forward by industry and landowners for possible inclusion as strategic site allocations in the plan.

1.3 This document is divided in to four sections. These are:

i. the **Background** to where we are in the preparation of the spatial strategy, a summary of the consultation process so far and a brief summary. This section also sets out the policy background to the legislative framework.

ii. ii) the emerging **Spatial Strategy** including the Spatial Vision, Spatial Portrait, and the objectives of the plan. This section concludes with the Spatial Options for Minerals Development in the county. The emerging strategy seeks to outline the desirable development principles whereby sustainable mineral development could take place. These are summarised in the 5 maps at the end of section 2. The development principles describe the existing geology, local transport networks, physical constraints, existing mineral sites, existing built form and potential new development such as growth points both inside and outside the county boundary. They also seek to define more closely the relationships between the supply and demand of the mineral and seeks to focus on the proximity of sites to their individual markets. It is intended that the maps along with the emerging strategy will help operators and landowners identify sites, which are likely to fit in with the final spatial strategy which will be put forward for submission.

iii. a review of the **Key Issues** set out in the previous Preferred Options report and an explanation of the findings from the consultation process, including some new issues which emerged from the consultation. These have been refined over the course of our previous consultations and in the light of policy guidance which has changed during the course of the plan preparation. The issues highlighted should be read in conjunction with the Spatial Options. These will help to form Policy Principles which in turn will be developed in to policies when the final plan is produced.

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iv. **Sites put forward by landowners for allocation** in the Core Strategy Document including sites from the previous Warwickshire adopted Minerals Plan. It is likely that any adopted mineral plan sites not proposed formally by their owners, will not be taken to the next stage of the plan, as this would mean that the sites would not be deliverable in the plan period.

The document also sets out a number of questions on issues which need to be discussed further as well as questions about the different spatial options. Our previous consultation dealt thoroughly with many of the key issues and the conclusions of these are set out in each key issue section together with a policy principle about how we intend to take each issue forward. We will focus particularly on those emerging issues which were brought out from the previous consultation, particularly restoration, inert waste, agricultural land, climate change and renewable energy. We have produced a questionnaire which repeats the questions set out in the document and which allows further comments to be made in respect of any issue which might be of particular interest. In addition we are asking for comments about the individual sites which have been put forward by industry and landowners.

1.4 The latest approved timetable for the Minerals Development Framework process is shown below::

Minerals and Waste Development Scheme - Approved November 2007

STAGE	PROPOSED DATES
Early Stakeholder and community engagement	December 2007 – December 2008
Consultation Date: Issues and Options	Revised Spatial Options January 2009
Consultation Date: Preferred Options and Proposals	November 2009
Date of Submission to the Secretary of State and public consultation on Core Strategy	July 2010
Pre-Examination Meeting	October 2010
Examination	January 2011
Receipt of Inspectors Report	July 2011
Estimated Date for Adoption (Full Council approval needed)	September 2011

Table 1.1 MINERALS CORE STRATEGY TIMETABLE

1.5 The consultation period for this document is 6 weeks starting on **19th February 2009** and ending on **3rd April 2009**. Events will take place during the consultation period including a Forum for stakeholders as well as exhibitions in public buildings over the county. Where there

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are higher concentrations of submitted sites, it is inevitable that some may wish to become more involved in the consultation. Where resources are available, we will do everything we can to facilitate these discussions.

1.6 This document is available on our website during the consultation period at: www.warwickshire.gov.uk/mineralscorestrategy. Comments can be made on the consultation in the following ways:

- Comment using our online Limehouse consultation system (link available at www.warwickshire.gov.uk/mineralscorestrategy).
- Complete the questionnaire enclosed.
- Complete the Microsoft Word version of the questionnaire (available at www.warwickshire.gov.uk/mineralscorestrategy) and email to planningstrategy@warwickshire.gov.uk.
- E-mail: planningstrategy@warwickshire.gov.uk
- Write to: Revised Spatial Options -
  Minerals Core Strategy,
  Planning Policy Team,
  Environment and Economy Directorate,
  Warwickshire County Council,
  PO Box 43,
  Shire Hall,
  Warwick,
  CV34 4SX.

The Core Strategy

1.7 Following our consultation on the Preferred Options in 2007, changes to the Core Strategy were required to be made as Minerals Authorities were advised by the Government Office for West Midlands and the Planning Inspectorate that strategic sites should be included in their core strategies. Guidance in the new version of Planning Policy Statement 12 states that strategic sites should be included in the Core Strategy where they are "considered central to the achievement of the strategy and where investment requires a long lead in". There is also a presumption that difficult decisions should be made in the Core Strategy not at a later stage.

1.8 Since that time and having sought to identify the strategic mineral sites in the county, it is considered that most of the minerals sites in the county are central to the delivery of the plan and consequently we consider them to be strategic. Our reasoned justification for this is set out in the next section (Strategic Sites).

1.9 We have therefore returned to the Options stage and have produced a short summary of the process so far and a summary of legislation and guidance which has come out since the Preferred Options were produced. We have decided to incorporate potential Strategic Site Allocations within the Core Strategy and are now preparing a Revised Spatial Options document

which includes potential site allocations. This document also sets out the main issues which arose from the previous consultations including some emerging issues at the end of the issues section which we would like to consider further.

Strategic Sites

1.10 In the Issues and Options Document we identified 19 Key Issues on which we consulted and formed options which were tested against a Sustainability Appraisal (SA). Preferred Options were developed and these were also consulted on and again tested through the SA.

1.11 As outlined above we have changed direction with the Minerals Development Framework (MDF) in that we are now proposing to include strategic sites within the plan. Government guidance in mid 2007 at the time the MDF Preferred Options stage had been carried out appeared to be leading mineral authorities to include strategic sites within their MDFs. Changes to PPS 12 were put forward which would enable more flexibility for plan preparation. A consultation document entitled "Streamlining Local Development Frameworks" was produced by the Department for Communities and Local Government in November 2007 to address the inflexibility of the original system.

1.12 In regard to the 'strategic sites' issue the proposed changes stated "Existing PPS12 paragraph 2.16 sets out that the Core Strategy is not the place to be making site allocations. However, it has become clear that there may well be areas where the options for determining the location of key strategic sites that are critical to the overall delivery of the strategy are very limited, in which case it would be unhelpful to delay the point at which there could be certainty surrounding such sites. In these circumstances it would be desirable to carry out the appraisal of those sites and allocate them in the Core Strategy. This has the added advantage of bringing forward the delivery of these key sites, as the Core Strategy will normally be the first Development Plan Document produced. This means that there will be far less delay in making key strategic sites available. Since these sites are often ones requiring a long lead time in terms of infrastructure planning, this is especially helpful. It will also assist in terms of being able to assess the ability of the core strategy to deliver the development required".

1.13 Warwickshire County Council takes the view that most of the minerals sites within the County are of strategic importance for the construction industry or for energy production for different reasons depending on each mineral. For this reason we intend to put forward these sites for submission within the Core Strategy document. As part of this process we will develop the Core Strategy further with new spatial options while at the same time considering new sites to be allocated as strategic sites. This document is the first stage in the request for the industry to bring forward new sites for allocation.

1.14 We are seeking further views as to whether you agree that this assessment of the sites is considered to be strategic. Minerals sites could be considered strategic based on the size of the resource, the scarcity of the mineral and or the location of the mineral in relation to the market it serves. All the minerals produced in Warwickshire are used outside the county as well as for local needs.

1.15 The reasoning behind our definition of strategic sites is different for each mineral and is set out below:

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Sand and Gravel

1.16 The strategic importance of sand and gravel for the construction industry is emphasised through the apportionment for the county set out in the Regional Aggregate Working Party (RAWP) annual reports. The annual apportionment is at present 1.043 million tonnes per annum. Our view is that strategic sites for sand and gravel can be defined in terms of scale and its contribution to meeting the RAWP requirements.

1.17 The Regional Spatial Strategy housing figures following consultation up to the Preferred Options stage show that development in the county is of sub-regional and regional significance. However, if higher housing numbers are required, potentially as a result of the options given in the Nathaniel Lichfield and Partners (NLP) study, (see Policy Context p135), the strategic importance of sand and gravel in the county will be even greater. Operators have confirmed that there are major flows of sand and gravel going out of the county to major developments in the major urban areas (MUAs) in addition to the sand and gravel needed to serve the major construction projects within the county.

1.18 In terms of numbers of sites required to provide the annual apportionment (and also build in flexibility for possible increases), we need to look at the number of existing sites in the county. At present there are 8 sand and gravel sites and several have very limited reserves. Coleshill Quarry and Marsh Farm are currently being restored with minimal output while Dunton and Middlleton Hall Quarry have stopped large scale production. Therefore, there may be a large fall in production in the near future at a time when there is a need to implement large scale sub-regional growth.

1.19 In order to implement the plan and build in some flexibility of supply we would probably require possibly 5 or more new sand and gravel quarries assuming that each quarry could produce at least 100,000 tonnes per annum. To ensure continuity of supply over a reasonable period there should be a presumption that the operation would continue over a reasonable period of time, for instance 5 -10 years. These sites must be considered to be strategic as the implementation of the sub-regional strategy to 2026 is dependent on these sites coming forward.

1.20 Extensions which are smaller and which may only run for two or three years could still fit in with the emerging strategy. They could still be considered to be part of a strategic site provided they fit in with the chosen spatial strategy and accord with the policy principles set out in section 3. Extensions would enable continuity of supply at existing quarries particularly in the short term.

1.21 Therefore, we would put forward that for sand and gravel a threshold of 100,000 tonnes and a lifespan of at least 5-10 years would be considered a strategic site.

Hard rock

1.22 The outcrop of hard rock in the north of the county around Mancetter and Griff quarries make these supplies regionally important. The high psv content of the rock quarried means that this mineral serves a national market for road building; this is made even more important in light of the fact that large areas of the south east have no local supplies of such rock and require supplies from this source in Warwickshire.

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Brick Clay

1.23 The Kingsbury Works in North Warwickshire supplies bricks nationally; its strategic importance is demonstrated by the scale of the operation (approximately 67 million bricks produced from 210,000 tonnes of Etruria Marl) and the rarity of certain unusual brick types which again are exported from the county to a national market. In the context of a rare resource with a very large production this site is defined as strategic in the context of the county.

Coal

1.24 The one underground pit in Warwickshire is the largest pit in the country. There is much coal still underground which is more likely to be extracted by open cast methods. At present one site has been submitted for consideration in section 4. We consider that the product could be transported to power stations outside of the county, such as Rugeley, and therefore could contribute to the national energy supply, which is of strategic significance.

Cement

1.25 The main cement works around Rugby and Southam. The works at Southam serves the large cement manufacturing plant at Rugby which is strategically significant in its own right in the production of cement and also as a waste facility. Consequently it is considered that Southam Cement works is of strategic importance in terms serving this facility.

Building Stone

1.26 Building Stone must be viewed in the context of the market which it supplies. Hornton stone is used in the Cotswolds for traditional construction materials. In the context of the Cotswold AONB, there is only one quarry in Warwickshire and therefore this site is strategically important for the county in terms of this specific mineral.

Question

1. **Do you agree with this approach to defining strategic sites for each mineral and including them within the core strategy?**

Question

2. **If you do not agree with the above statement how would you define a strategic mineral site?**

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Question

3. **Should there be a threshold level for production for sand and gravel sites to be defined as strategic? If so should the threshold for a strategic sand and gravel site be at least 100,000 tonnes production per annum and at least a 5-10 year lifespan?**

Policy Context

The Planning Act (2008)

1.27 The Planning Act will bring forward a number of proposals to streamline Local Development Framework production which would require changes to regulations and/or policy. The proposed changes were consulted on in a document called "Streamlining Development Frameworks" following recommendations set out in the Planning White Paper of May 2007.

1.28 The main areas of change to regulations concern improved consultation arrangements, revisions to the process of plan making and changes in the way Supplementary Planning Documents are produced. Changes to PPS12 were proposed including emphasising the key role the Core Strategy plays; the need for making progress with LDFs; increasing the flexibility local authorities have in producing documents so as to concentrate on the essentials and repackaging the tests of soundness.

National Minerals Planning Policy

1.29 Minerals Policy Statements set out the Government's national planning policies for minerals in England. The main guidance is set out in Mineral Policy Statement 1: Planning and Minerals, with associated Good Practice Guide (MPS1) and Minerals Policy Statement 2: Controlling and Mitigating the environmental effects of minerals extraction in England (and its two annexes on noise and dust). In addition there are sections of individual Minerals Planning Guidance documents which are still relevant to the particular mineral topics. These are set out in full in MPS1.

MPS1

1.30 sets out the core policies and principles for minerals planning in England. It replaces Mineral Planning Guidance 1 and Mineral Planning Guidance 6 "Guidelines for Aggregate Provision in England". Its main objectives for minerals planning are in line with the Government's overall aims for sustainable development. It has four annexes on 4 specific subject areas: aggregates, brick clay, natural building and roofing stone and onshore oil and gas.

1.31 The key policy messages are:

- To ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction;
- To conserve mineral resources through appropriate domestic provision and timing of supply;
- To safeguard mineral resources as far as possible;

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- To prevent or minimise production of mineral waste;
- To secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- To protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in exceptional circumstances;
- To secure adequate and steady supplies of minerals needed by society and the economy within the limits set out by the environment, assessed through sustainability appraisal, without irreversible damage;
- To maximise the benefits and minimise the impacts of mineral operations over their full life cycle;
- To promote the sustainable transport of minerals by rail, sea or inland waterways;
- To protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long term potential of land for a wide range of after-uses;
- To secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection and legislation; and

1.32 The above aims will be translated in to the aims of the Minerals Core Strategy.

National Planning Policy Context

1.33 The Mineral Planning Policy Statements outlined above should be read alongside and in conjunction with other general planning policy statements. There are 25 Planning Policy Statements which provide guidance on subjects such as sustainable development and climate change, flooding, biodiversity, planning for sustainable waste management, transport and rural areas.

Planning Policy Statement 12 (Local Spatial Planning)

1.34 PPS12 sets out the main principles behind Local Development Frameworks introducing the idea of the Core Strategy and Allocations DPDs. The original version of PPS12 produced in 2004 has now been revised to incorporate a number of changes which are reflected in this Revised Spatial Options document.

1.35 It now spells out in broad terms where developments should go. i.e. strategic sites should be identified at this stage of plan preparation. Plans should focus on implementation and delivery with a strong focus on who will implement the plan and on infrastructure delivery and timescales. Landowners and developers need to be engaged at an early stage of the process.

1.36 It is important that the LDF core strategy is firmly linked into and in turn influences other strategies of the authority and of the local strategic partnership. It should ensure the role of the core strategy is at the heart of the council's place shaping role. It should ensure the tests of soundness are represented in a way which avoids duplication with legal processes and makes it clear why testing for soundness matters. Plans should be produced with the intention of delivering sustainable development; and to do that LPAs will need to be able to show that they are **"justified" and "effective**".

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Regional Planning

West Midlands Regional Spatial Strategy (RSS)

1.37 The RSS is one part of the statutory development plan, which will guide future development across the West Midlands (2001-2021). The RSS is currently under partial review**.** Increased house building in the West Midlands is anticipated following the review of the RSS. All districts and boroughs in Warwickshire will see housing allocations increase sharply from existing current targets. Since the proposed figures were produced for consultation, Nathaniel Lichfield and Partners (NLP) were commissioned by the Government Office for the West Midlands (GOWM) to provide a study on even higher housing numbers for the Region. The comments from this will inform the Examination in Public opening in April 2009 in front of an independent expert Panel who will report to the Minister. The consultation on the Regional Spatial Strategy Phase Two revision closed on 8 December 2008.

Local Planning

Minerals Local Plan (adopted 1995) and Waste Local Plan (adopted 1999)

1.38 These are the currently adopted Local Plans for minerals and waste. Several policies have been saved from the plans.

Warwickshire Structure Plan (WASP)

1.39 Prior to the Planning and Compulsory Purchase Act 2004, the County Council was responsible for the production of the Structure Plan, which provided the strategic policy context for the county. Relevant policies have been saved in the interim until the RSS has been approved whereupon the saved polices will become redundant and replaced by RSS policies.

Warwickshire Local Transport Plan 2006 (WLTP)

1.40 The Warwickshire Transport Plan sets out how the county and its partners intend to improve transport and accessibility over a five year period from 2006 and outlines longer term improvement schemes in the county. Transportation of minerals in the county should accord with the policies and principles of the WLTP.

District and Borough Local Plans

1.41 These provide the planning policy context at a local level. In the same way as the Minerals and Waste Local Plans are being replaced by new LDF's each district and borough in Warwickshire is in the process of replacing their local plans with new LDFs.

Warwickshire's Sustainable Community Strategy

1.42 At the heart of the Minerals MDF is the community strategy for the county which is the "Warwickshire Strategic Partnership Plan". This plan will help to shape the MDF. It has been produced by a number of agencies including the County Council, the Districts and Boroughs, Health Care Trusts, the Police and business and community organisations. The strategy aims

to provide a strategic county-wide direction to specific activities which can only be achieved in partnership and act as a strategic driver for progressing the key issues facing Warwickshire with sub-regional, regional and national partners. The aims of the strategic plan are to provide:

- Good quality housing available at an affordable price.
- A safe environment for all those who live, work and visit Warwickshire.
- A natural environment, climate and resources that support and enhance life for future generations.
- Sustainable economic growth, where jobs are created and retained; and residents are equipped with appropriate skills and competencies.
- The best possible health and well-being for all.

1.43 The plan takes account of the spatial dimension of land use planning through the Structure Plan and the RSS. It also sets out the context for the LDF and this is outlined in our spatial portrait below.

Local Area Agreements (LAAs)

1.44 LAAs are agreements made between central government and local publicly funded organisations. Their aim is to achieve local solutions that meet local needs, while also contributing to national priorities and the achievement of standards set by central government. The Agreement focuses around four “functional blocks”:

- Children and young people
- Safer and stronger communities
- Healthier communities and older people
- Economic development and enterprise

1.45 LAAs have agreed set targets on issues covering the above four blocks. Minerals is mainly covered by the Healthier Communities and Economic Development blocks. One particular target relates to carbon reduction measures. How this relates to minerals development is outlined in Issue 19 (p71).

Policy summary

1.46 The national, regional and local plans, policies and guidance set out above set the context for the Minerals Local Development Framework. The next section will set out how the Core Strategy has developed.

2 Development of the Core Strategy

2 Development of the Core Strategy

Spatial Portrait

2.1 Warwickshire is part of a sub-region which comprises Solihull, Coventry and the Districts and Boroughs of North Warwickshire, Nuneaton, Rugby, Stratford and Warwick. The county lies to the east and south east of the West Midlands conurbation and provides a gateway between the west midlands and the east midlands and south east. While the county looks towards the west midlands conurbation in terms of transport and the heavy industrial heritage, it also sits easily within the hi-tech knowledge based industries of the south east in Oxfordshire and Northamptonshire. Figure 2.1 shows these inter-relationships and the main transport links between the main towns in the county.

Minerals in the County

2.2 The diverse mineral resources of Warwickshire have been exploited since the first human settlements developed in the county. Today extraction of coal, sand and gravel, crushed rock, brick clay and ironstone still occur and extensive reserves of these minerals still exist. A map of the county geology with all the existing mineral sites and existing allocations is shown in Figure 2.2.

2.3 Historically **bricks** have been made across Warwickshire wherever a suitable clay was found. The use of local clay for the production of bricks has ceased with the exception of the large scale brickworks at Kingsbury which extracts the high quality Etruria Marl which is part of the county's Carboniferous sequences of rocks. However, this is a major plant of regional and national significance owing to the specialist brick types which are exported around the country.

2.4 The use of **local stone for building** purposes has been widespread in Warwickshire with Warwick and Kenilworth Castles being obvious examples. Stately homes, churches and various settlements have been constructed from local materials such as Triassic sandstones and Jurassic Ironstones, reflecting the county's varied geology. However, the stone quarries supplying local materials have all but finished, which is creating a problem in repairing local buildings and retaining the local distinctiveness of many towns and villages.

2.5 **Coal** from the Carboniferous Coal Measures which are exposed at the surface in the north of the county has been exploited since Roman Times. Small scale operations from shallow pits continued until the middle to late 19th century when numerous deep mines began operation in North Warwickshire reflecting an increase in the demand for coal and advances in mining technology. One deep mine remains in operation at Daw Mill, near Arley in North Warwickshire. Current coal extraction takes place in the Corley Moor area at a depth of around 800 – 900 metres.

2.6 The production of **cement** has a long history in Warwickshire with extraction of the required minerals (Jurassic Lias limestones and shales) occurring around Southam and Rugby. Current production comes from the one cement kiln in Rugby, where locally extracted materials are mixed with chalk from Bedfordshire.

Development of the Core Strategy

2.7 **Sand and Gravel** is widespread around the county but is generally found in river terrace deposits along the floors of major river valleys such as the Tame and the Avon. Glacial deposits of sand and gravel are also widespread but are mainly centred around Dunchurch and Wolston, Coleshill and interspersed along the A5 from Hilmorton to Wolvey. There are a number of large sand and gravel quarries in these areas and demand in the future is expected to grow. Warwickshire's proximity to the West Midlands Conurbation and South Midlands Growth Area of Northampton and Milton Keynes has created a demand for minerals, especially construction materials such as aggregates and cement. The recently produced NLP study has identified the sub-region as an area of growth to cater for additional growth above the RSS Preferred Option figures.

2.8 The Precambrian and Ordovician igneous rocks which outcrop around Nuneaton up to Mancetter in North Warwickshire are a vital source of high specification **roadstone** and aggregates which supply the main road networks of the West Midlands and neighbouring regions. Warwickshire produces approximately 1.4 million tonnes per annum* and still has a healthy landbank. *(This figure is shown in conjunction with the figure for Staffordshire for reasons of confidentiality).

Warwickshire's Socio-economic/Environmental Portrait

2.9 The Warwickshire Strategic Partnership Plan identifies that a much larger population increase has taken place in Warwickshire over the last 30 years than in the UK as a whole, much of which is immigration by elderly people. Within these figures are population increases amongst people of ethnic origin and a large increase in single person households. Of particular importance is that despite the prosperity of the county there are inequalities, with the majority of the poorer areas in the north of the county. Whilst higher levels of deprivation exist in the north of the county, even within generally more prosperous southern districts, pockets of disadvantage exist, compounded by the physical and practical problems of lack of transport and support services and of limited employment opportunities outside the main towns. Almost a quarter of children in Nuneaton & Bedworth live in a lone parent household whilst almost 4,000 children within the Borough live in a household where no adult is in employment. Inequality also exists within districts. The Office of the Deputy Prime Minister's Index of Multiple Deprivation 2004 (IMD 2004) provides the most detailed and comprehensive measure of deprivation and disadvantage to date. It reveals:

- Two areas within Nuneaton & Bedworth feature within 10% of the most disadvantaged in England.
- Of the 37 Warwickshire areas in the worst 30% nationally, 26 are within Nuneaton and Bedworth, 4 within Rugby, 5 within Warwick and 2 within North Warwickshire.
- The IMD 004 also measures the disadvantages that rural communities can experience in terms of the accessibility of key services and access to affordable housing. Five Warwickshire Super Output Areas feature in the 1% most deprived areas for access to services and housing in England. These areas are all in Stratford and Warwick districts.

2 Development of the Core Strategy

Jobs, skills and Learning

2.10 Nuneaton and Bedworth and North Warwickshire areas both suffer in comparison with national statistics on wage rates, skills and educational attainment. Unemployment in Warwickshire is low. However 6.5% and 1.3% of the working age population respectively are claiming incapacity benefit and lone parents benefits.

2.11 There are also a number of issues to be addressed in the rural areas of the county. Employment in the agricultural economy is low, but it still plays a key role in maintaining the considerable asset value of the farmed landscape. Subsequently there is a need to continue to assist in helping to modernise, diversify, and sustain the county's rural economies.

Environment

2.12 Despite substantial improvements in reducing waste and recycling, the majority of household waste produced in Warwickshire goes to landfill.

2.13 Based on UK emission figures, the West Midlands Energy Strategy and Warwickshire's specific energy consumption figures, the county is required to reduce annual emissions by an extra 57,000 tonnes of carbon dioxide each and every year to 2050 from a base year of 2003.

2.14 The county has seen an increase in unimproved grassland as well as a loss of hedgerows and traditionally managed woodland. Warwickshire is one of the two worst hit counties in England, flower-rich pasture and meadowland has reduced to just a few hundred acres – a 97% loss between the second World War and 1996 and we have lost 32% of our hedgerows, both as a result of agricultural intensification. The Warwickshire, Coventry and Solihull Local Biodiversity Action Plan, comprises separate plans for 26 species and 24 habitats and sets out how anyone, including landowners, land-managers and policy makers, can protect the characteristic wildlife and landscapes of our county and sub-region. This, together with increased funding for specific schemes sets a new framework for protection and improvement of local habitat and biodiversity.

Flooding

2.15 Warwickshire's topography and river drainage pattern make parts of the county at particular risk from flooding events. In recent years there have been a number of large scale flood events across the country which have all had an adverse impact on the county. The three largest flood events in the county occurred in January 1985, April 1998 and most recently in July 2007. There were flooding incidents recorded across the whole county at these times but the most severely and regularly affected areas are all the reaches of the Leam and Avon and the tributaries of these rivers. Stratford and Leamington are the main urban areas to be most affected by large scale flooding defences but many more rural towns and villages have also suffered.

Community Safety

2.16 Warwickshire is one of the safest places to live, and crime levels are low compared to regional and national averages. Although there are some variations in crime levels across Districts and Boroughs in Warwickshire, all five have crime rates below both the regional and national levels.

Development of the Core Strategy 2

Fear of crime and disorder is one of the most important factors influencing the quality of life of residents in Warwickshire. Fear of crime is generally higher in the north of the county, and geographically the fear of crime matches fairly closely with the levels of actual crime. However, the fear of crime remains disproportionately higher than crime itself.

Health and Well being

2.17 Overall, health in Warwickshire compares well with the rest of England, and is improving. There are still wide variations however, both across the county as a whole, and more locally within each district. There is not yet any evidence that these inequalities are being reduced, and thus it is vital that health improvement activities are targeted to make an impact on reducing health inequalities.

Summary

2.18 The issues outlined above reveal a snapshot of a prosperous county but with pockets of deprivation suffering underlying problems across all areas i.e. health, crime, housing affordability, jobs and environment. Although the Minerals LDF can only influence some of these factors to a small degree, it can literally provide the building blocks for the regeneration of less affluent areas and also contribute to recycling and protection of natural resources and the environment as a whole, ensuring development is proposed in the most appropriate locations.

2.19 Minerals may also be able to help address or contribute to some of the other issues outlined, such as:

- providing jobs in rural communities and deprived urban areas which area all close to the quarry belt.
- enabling agricultural restoration in some areas to retain the best and most versatile land for food production and provide and retain jobs in agriculture.
- enable habitat creation as part of restoration schemes to replace habitats which have been lost.
- quarries may be able to perform a secondary function in the amelioration of flooding.
- minerals sites may provide opportunities to provide renewable energy facilities and could accommodate carbon sinks as part of restoration schemes for biomass.

2.20 The maps below summarise the context for growth, constraints to and opportunities for minerals development in the county. Figure 2.4 shows the proposed broad growth areas in the sub-region which will influence the minerals strategy. The RSS identifies a north/ south development corridor from Nuneaton to Warwick/ Leamington and major growth centred on Rugby which are all identified as emerging Settlements of Significant Development (SSDs) outside the Major Urban Areas (MUAs). Consequently, we are introducing the idea of a minerals development corridor centred between the main SSDs, where minerals development (particularly sand and gravel) could be focused. This is developed further in Spatial Option 3 in the next section.

2 Development of the Core Strategy

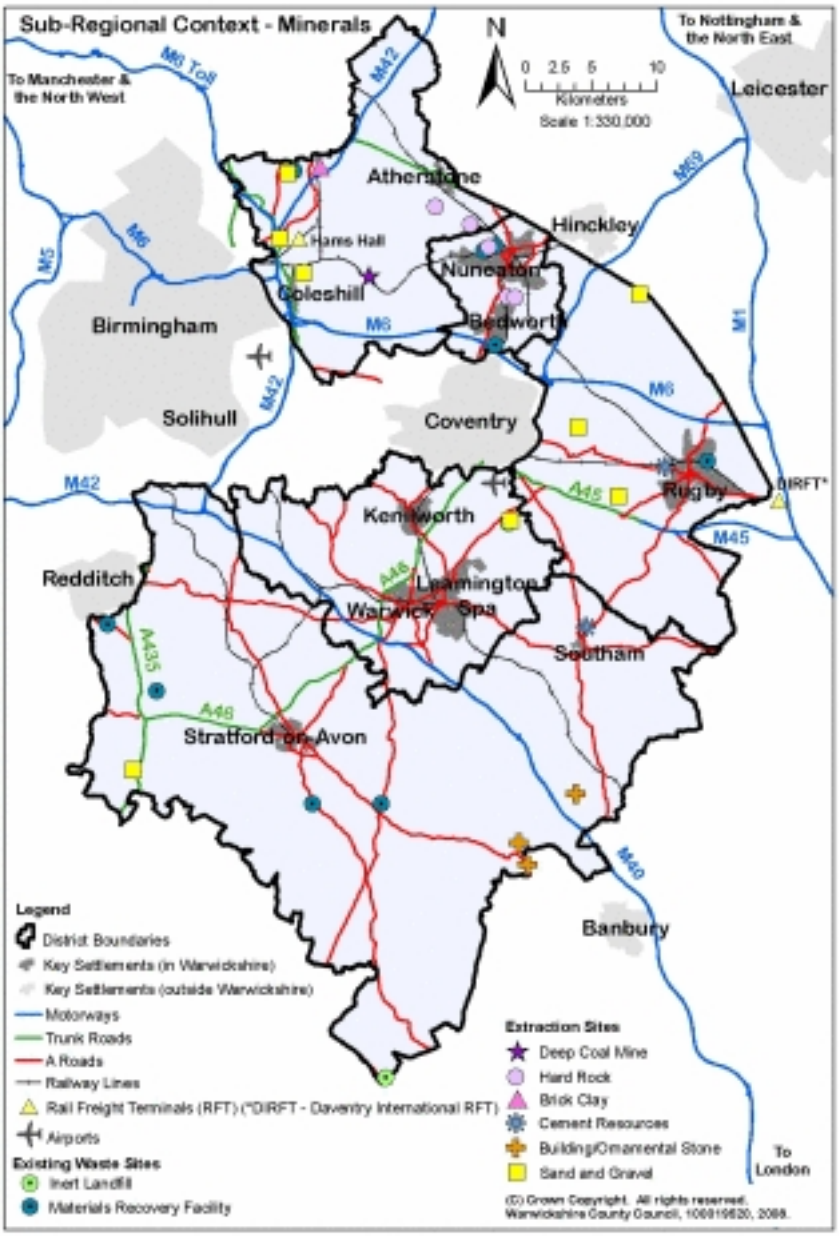


Figure 2.1 Sub-regional Context

2.21 Importance of sub-regional context in relation to the emerging MDF Strategy

- Location of main urban areas and infrastructure in and around Warwickshire
- Major transport routes in the county
- Location of minerals sites to major transport routes

Development of the Core Strategy

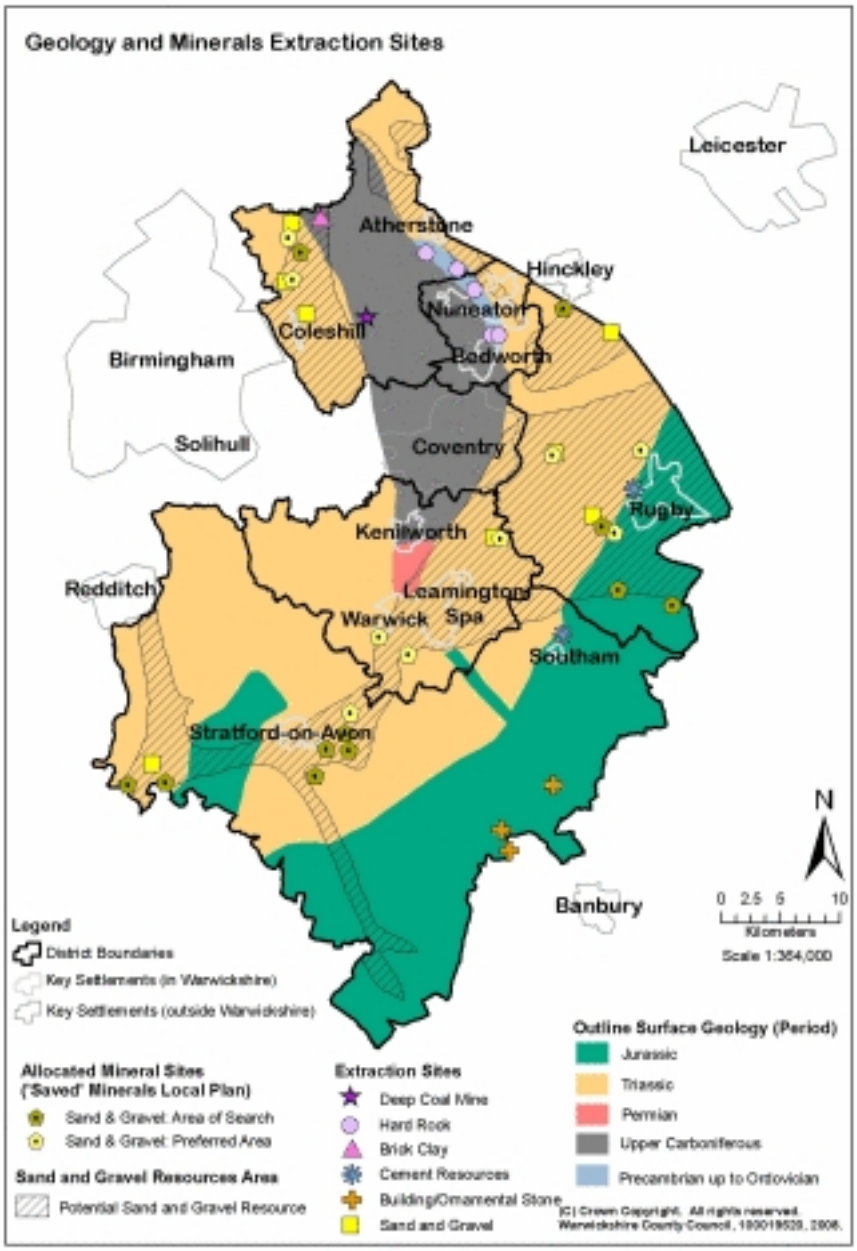


Figure 2.2 Geology and Mineral Extraction Sites

2.22 Importance of geology in relation to the emerging MDF Strategy

- Active Mineral Sites
- Allocated sites for Sand and Gravel extraction in current adopted Local Plan
- Broad Sand and Gravel resource areas in Warwickshire
- Restricted outcrop of Crushed Rock reserve in north of county
- (not shown - very restricted and localised mineral resources for Brick Clay and near surface Coal).

2 Development of the Core Strategy

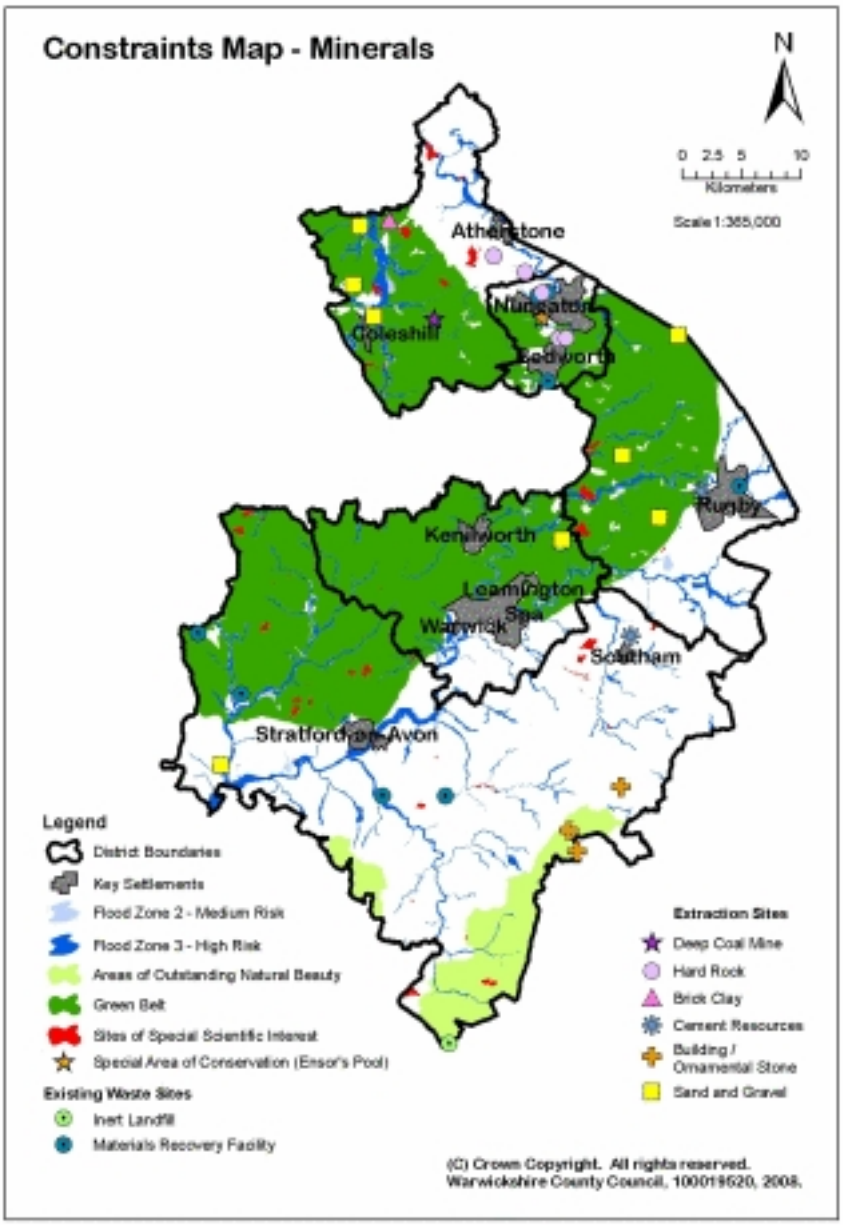


Figure 2.3 Constraints Map

2.23 Importance of constraints to the emerging MDF Strategy

- Areas of Flood Risk
- Location of Green Belt
- Location of the Cotswold Area of Outstanding Natural Beauty
- Sites of Special Scientific Interest (National Designation) and Special Area of Conservation (European Designation)
- Extent of urbanised areas in Warwickshire

Development of the Core Strategy

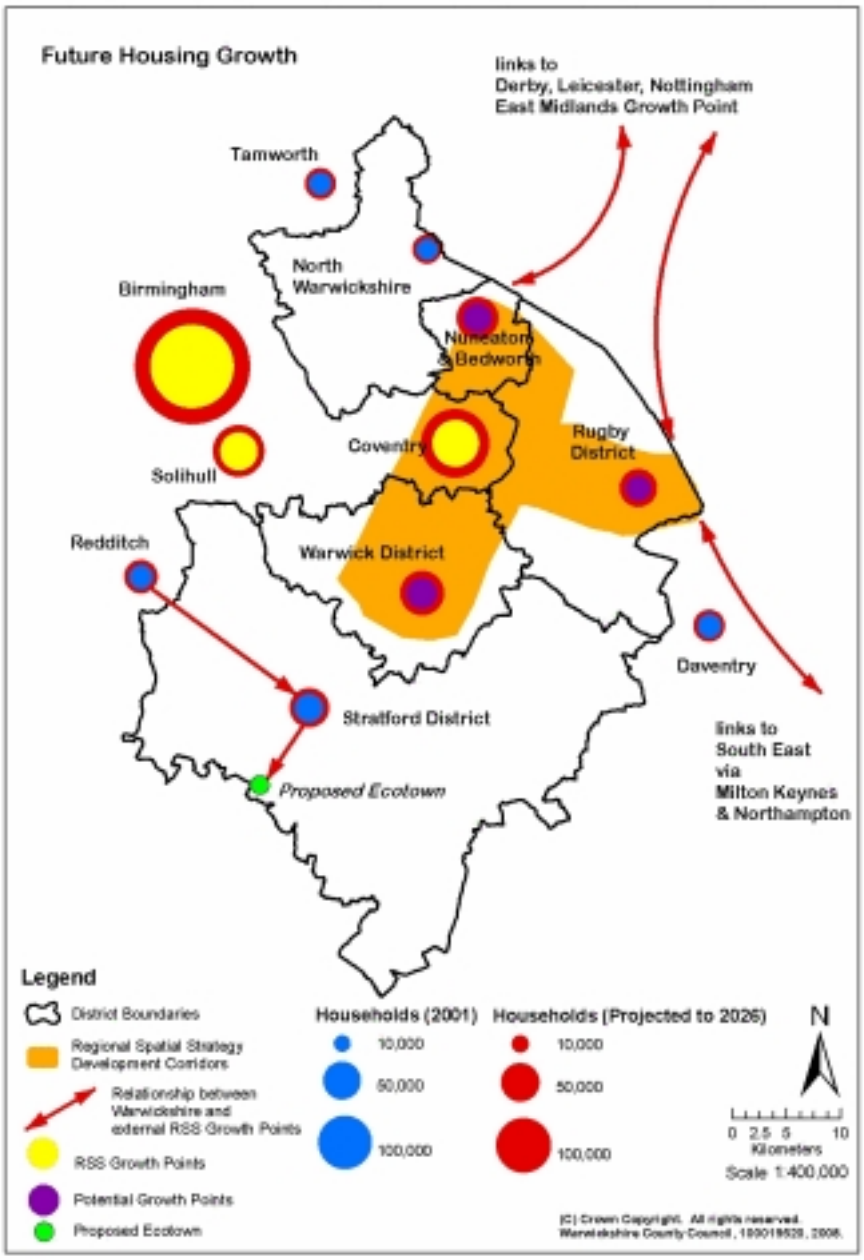


Figure 2.4 Future Housing Growth

2.24 Importance of future growth in the sub-region and beyond to the emerging MDF Strategy

- The Regional Spatial Strategy Development Corridor for minerals between the emerging SSDs (Nuneaton, Warwick / Leamington and Rugby.)
- Areas of future potential housing and employment growth in Warwickshire
- Proximity of other major Growth Areas to Warwickshire
- Proposed Eco-Town site
- Growth areas outside the county

2 Development of the Core Strategy

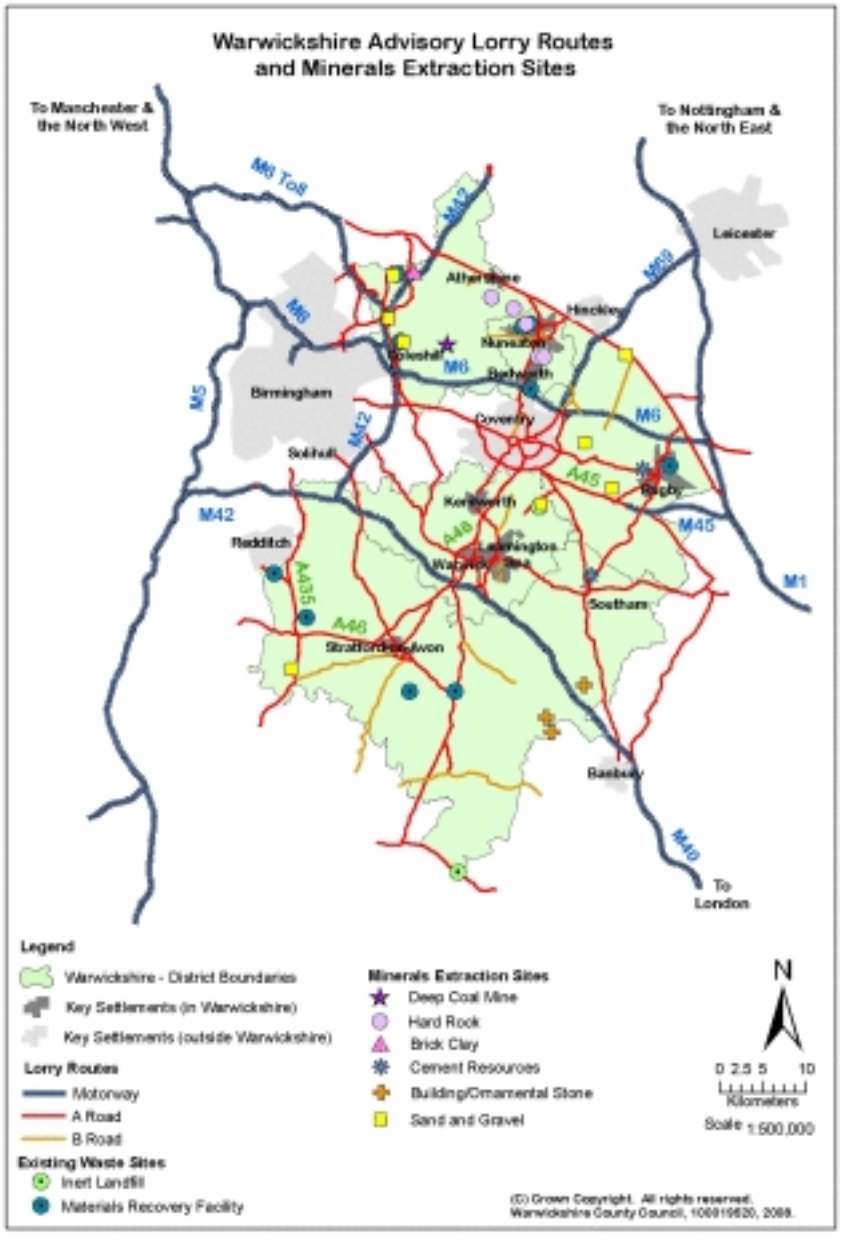


Figure 2.5 Warwickshire Advisory Lorry Routes and Mineral Extraction Sites

2.25 Importance of the county's advisory lorry routes in site assessment for the emerging MDF Strategy

- Routes where the bulk transportation of minerals should be encouraged in Warwickshire

Development of the Core Strategy

Spatial Vision

2.26 The Spatial Vision provides an image of what the county may look like at the end of the plan period (2026) in setting out how the MDF will be implemented. The plan will encompass our aspirations for the future direction of growth in line with the development strategy of the Regional Spatial Strategy for the sub-region, the county and for each district within the county, and paying particular regard to Community Strategies.

2.27 We have refined the Vision through the previous two consultations at Issues and Options and Preferred Options stage. The Vision has now been amended to accommodate these previous comments to the following:

SPATIAL VISION

To secure and manage the long term sustainable supply of Warwickshire's primary and secondary minerals serving local, regional and national needs, whilst conserving the environment and promoting long term social and economic benefits.

Question

4. **Do you agree with the Minerals Development Framework Spatial Vision for the county?**

Question

5. **If not, what amendments would you like to see?**

Objectives

2.28 In order to achieve the Spatial Vision we have in previous consultations set out a number of objectives, which have been refined during our previous consultation work. These are set in the context of the main objectives for national mineral planning. These are set out below:

Key Objectives for National Mineral Planning

2.29 The Government's objectives for mineral planning (as required in Section 39 of the Planning and Compulsory Purchase Act 2004 and listed in Mineral Planning Policy Statement 1) are set out in section 1.31. The following section identifies the key objectives that will guide the Warwickshire Minerals Development Framework. These objectives have been derived from the national objectives and, from knowledge based on minerals planning in the local area and from feedback based on two sets of consultation carried out from 2006-2007.

2 Development of the Core Strategy

Objectives of the MDF

2.30 The MDF objectives produced previously within the plan process and following the Preferred Options consultation, have now been developed further. The objectives have now been scrutinised twice and refined following stakeholder comments. The sections in bold print are where we have changed the objectives following feedback from stakeholders. Having assessed the national mineral objectives and taken in to account these consultation comments, we have prepared a revised set of objectives to help achieve the Spatial Vision. These are as follows:

Development of the Core Strategy 2

i. To help deliver sustainable mineral **development** by promoting the prudent use and **safeguarding** of Warwickshire's mineral **resources and help prevent sterilisation of land.**

ii. To promote the use of recycled or secondary materials and promote waste minimisation **to** reduce the overall demand for primary mineral extraction.

iii. To **secure** the supply of minerals required to support **sustainable** economic growth at the national, **regional** and local level.

iv. To **conserve and enhance** the natural and historic environment and mitigate potential adverse effects associated with mineral developments.

v. To have **full** regard for the concerns and interests of local communities and protect them from unacceptable environmental effects resulting from mineral developments;

vi. To minimise the impact of the movement of bulk materials by road on local communities and where possible encourage the use of alternative modes of transport.

vii. To ensure mineral sites are restored to a high standard once extraction has ceased and that each site is restored to the most beneficial use(s).

viii. To promote the use of locally extracted materials to encourage local distinctiveness and reduce transportation.

ix. To reduce the effect of mineral extraction on the causes of climate change.

x. To ensure the best agricultural land is protected or replaced to its former quality.

Question

6. **Do you agree with the Objectives for the Mineral Development Framework set out above?**

Question

7. **If not, what amendments or additional objectives would you suggest?**

2 Development of the Core Strategy

Development of Spatial Strategy

2.31 The Spatial Strategy will be selected following the development and analysis of different spatial options. At this stage there are a number of desirable factors which may help steer the MDF towards a chosen strategy. These were raised during the previous consultation stages of the plan.

Geology - Minerals can only be worked where they are naturally found in the ground.

Sustainability - Proximity to markets i.e. areas of new development and new growth areas especially in relation to sand and gravel and brick clay. (In the next section on the spatial options one of the options proposes a Minerals Development Corridor which seeks to link mineral extraction with future growth areas centred around RSS defined growth areas). In addition other factors are important:

- Capacity to be served by rail or water transport.
- Quarry extensions can make use of existing infrastructure.
- Sustainable drainage / hydrology.
- Crossover with waste operations i.e. dual use within mineral sites.

Transport - Good accessibility to major road routes/ avoiding villages and minor roads where possible - access on to the main HGV routes in the county.

Constraints to Mineral Development - At the same time minerals development should seek to avoid impacting on:

- Residential Areas (and other sensitive land uses) at a very local level for amenity reasons, while at the same time recognising that being located strategically close to development areas will reduce transportation distances.

- Statutory Designated Areas - e.g. Special Areas for Conservation, Sites of Importance for Nature Conservation , Sites of Special Scientific Interest, Archaeological sites, Cotswold AONB, etc.

- Other factors i.e. best quality agricultural land, public open space and other factors set out in Policy Principle 1 (Development Criteria)

In terms of developing the spatial strategy the MDF will look particularly closely at these factors when assessing the three different spatial options which have been set out below.

Spatial Options

2.32 In moving forward on the Minerals Core Strategy, we have identified three spatial options which we are putting forward for consideration and comment. These are considered to be realistic options which will allow some flexibility of choice.

2.33 The three spatial options are:

Development of the Core Strategy 2

Spatial Option 1

Development/ Transport led (Extensions only option - see Fig. 2.6) - similar to Option 3 but concentrated only in existing large quarries.

2.34 Option 1 (Extensions) – Advantages

1. Areas around existing sites have proven resources which are economically viable to extract.

2. Existing sites have infrastructure already in place which can be more sustainable than developing new sites.

3. Communities close to existing quarries become accustomed to the mineral operations and have Liaison Groups set up to discuss issues with the operators.

2.35 Option 1 - Disadvantages

1. Some communities have continual development over a longer period than would normally be the case often caused by cumulative impact of more than one extension.

2. Any adverse impacts may be drawn out over a longer period.

3. If a site is not well located to the transport system the impacts could be exacerbated over a longer period of time.

4. Focus on extending existing sites only could discriminate against new operators

5. Some of the existing sites are nearing the end of their life and there may not be enough material on extension sites alone to provide enough resource till 2026.

Spatial Option 2

A Continuation of the existing local plan strategy (Geology Led – see Fig. 2.7) - Dispersed site selection within geological areas. No major emphasis on transport connections or focus on future growth areas.

2.36 Option 2 – (Local Plan) Advantages

1. Dispersal of sites around the county would ensure any adverse impacts would not be focused around only a few communities.

2. Many of the sites in the existing plan have been fully assessed for mineral resources.

2.37 Option 2 – Disadvantages

2 Development of the Core Strategy

1. Many of the sites have not come forward in the 14 years since the existing plan was adopted.

2. Many of the sites are not well located for main transport routes.

3. Some of the existing sites are nearing the end of their life and there may not be enough material in existing local plan sites alone to provide enough resource till 2026.

Spatial Option 3

Development/ Transport/ Accessibility led option (See Fig. 2.8) - Based on the selection of new and existing sites close to the main road network and close to main growth areas in the county focused primarily within a "Minerals Development Corridor" linking Nuneaton, Warwick/ Leamington and Rugby.

2.38 Option 3 – (Development/ Transport led) Advantages

1. Sites would be assessed against potential markets to reduce distances for transporting minerals.

2. New and existing sites would have all the advantages of Options 1 and 2.

3. Both new and existing operators in the county have an opportunity to put forward sites.

4. New and existing sites would ensure adequate supply till 2026.

2.39 Option 3- Disadvantages

1. Some completely new land would have to be excavated which could be less sustainable than existing sites.

2. New sites may have a worse impact on the landscape than existing sites: Existing sites are usually already assimilated in to the landscape.

NB The Mineral Development Corridor has not been formally designated. It is purely a mechanism to show potential mineral development in a broad defined area which reflects the overall pattern of future growth in the county required by the Regional Spatial Strategy.

Development of the Core Strategy

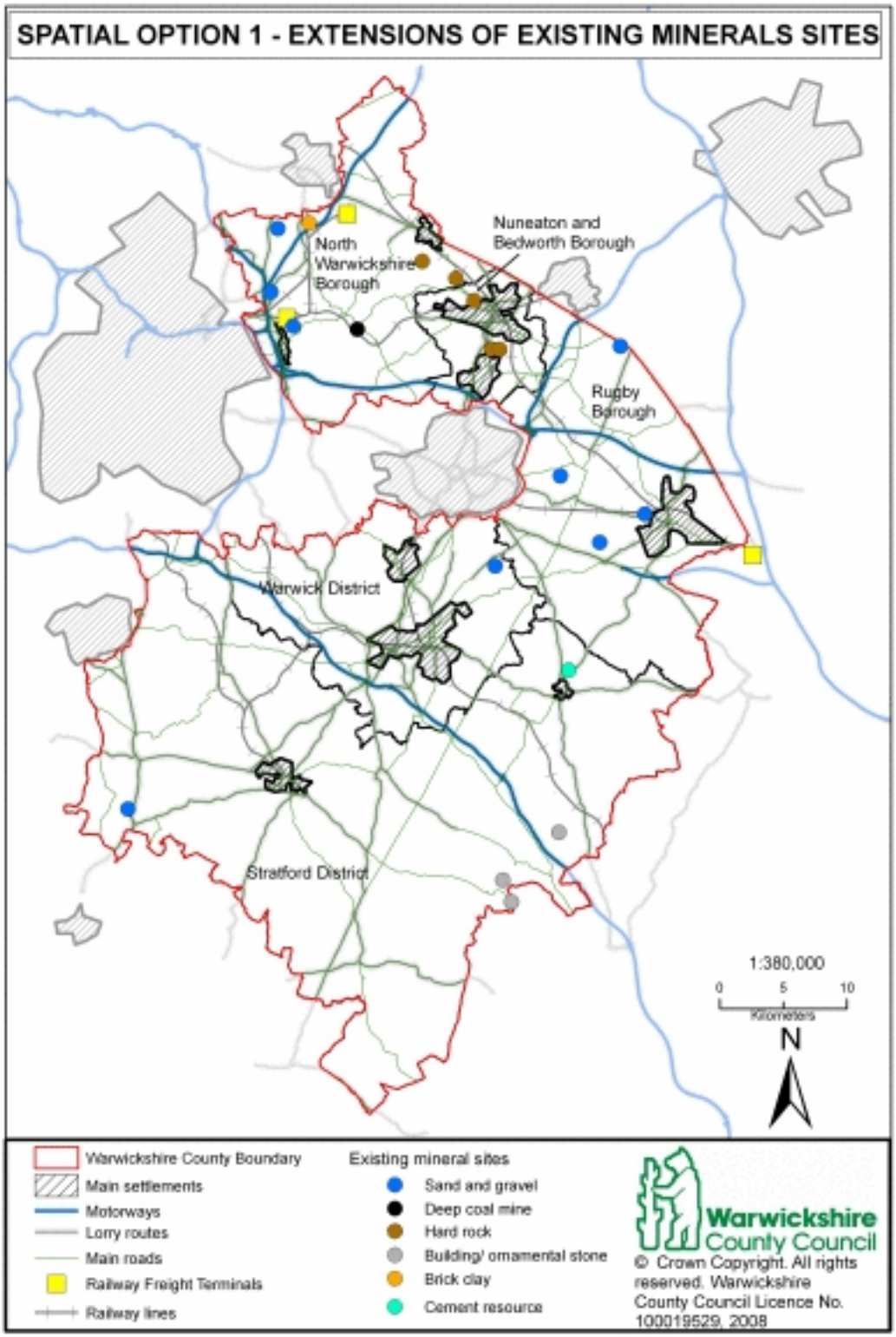


Figure 2.6 Spatial Option 1

2 Development of the Core Strategy

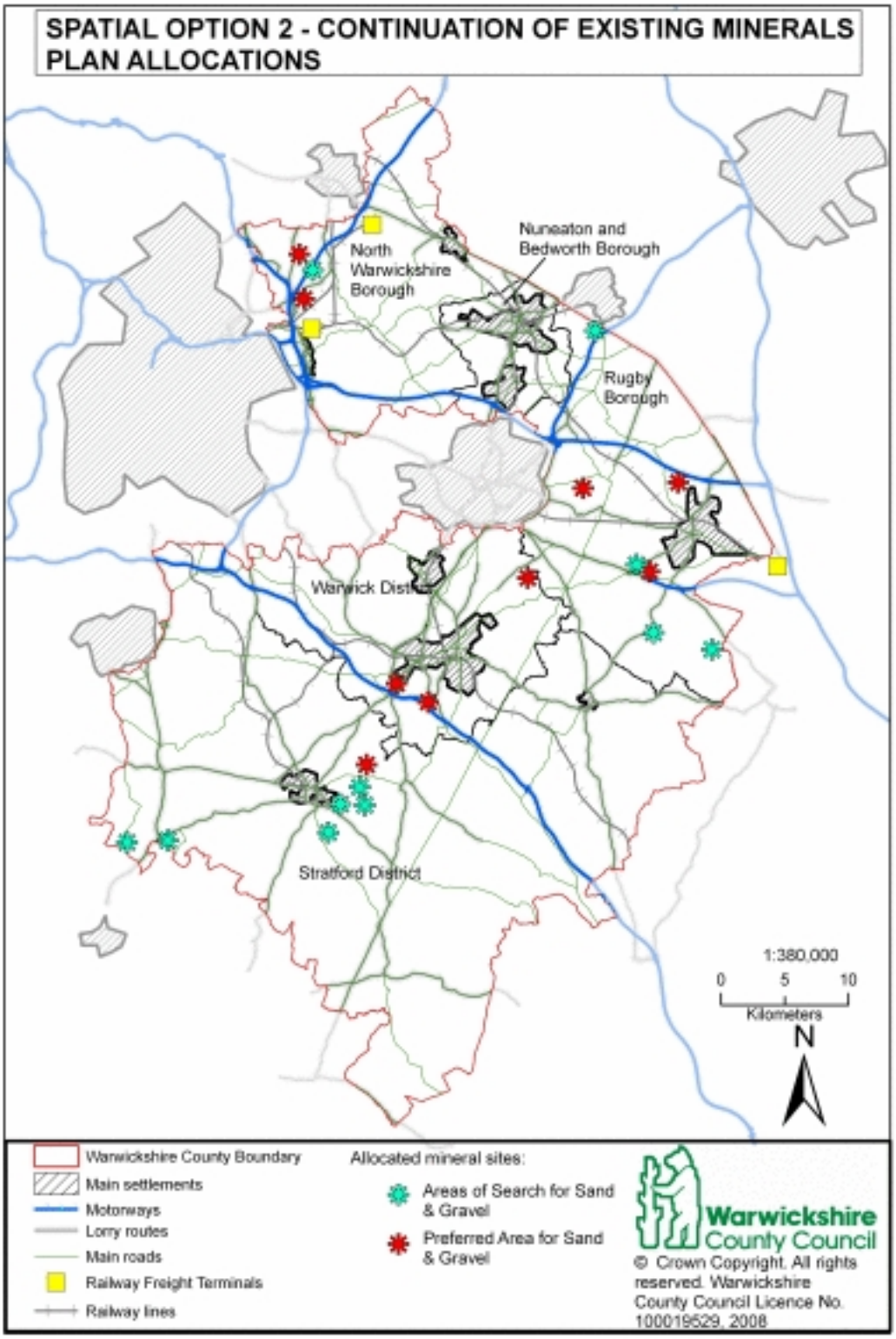


Figure 2.7 Spatial Option 2

Development of the Core Strategy

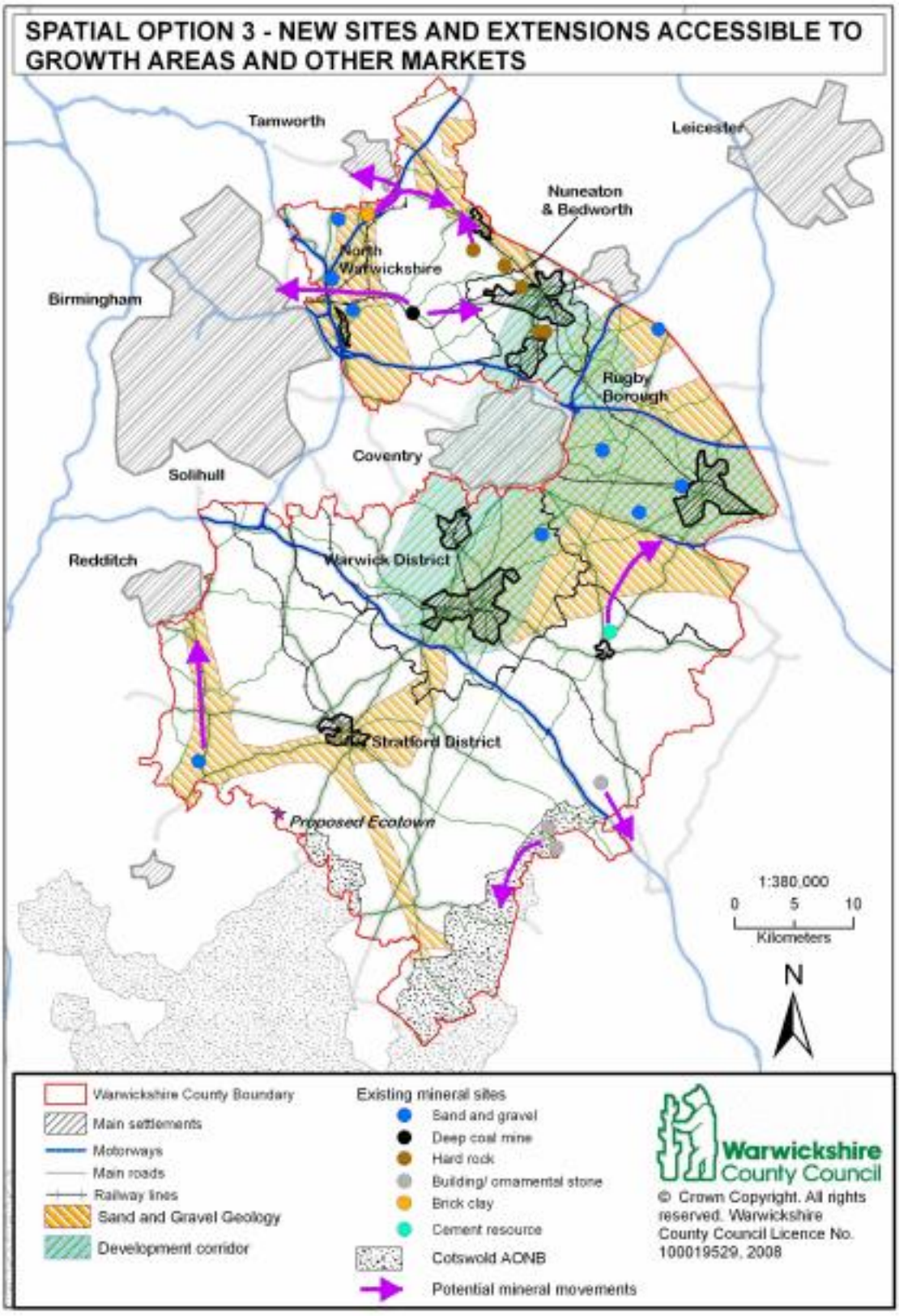


Figure 2.8 Spatial Option 3

2 Development of the Core Strategy

2.40 The purpose of this document is to assess the above spatial options and then choose a preferred option which might be one of the three options set out above or a mixture of some or all of them. The options will be subject to a sustainability appraisal which will help us to identify which option performs best in terms of being the most sustainable option..

Question

8. **Which spatial option would you prefer to see taken forward to the preferred option stage?**

- Option 1
- Option 2
- Option 3

Question

9. **What are your reasons for your choice?**

Question

10. **Are there any other spatial options that ought to be considered?**

3 Issues

Issue 1 - Development Criteria

3.1 All spatial options, strategic site submissions and future mineral development planning applications will have to be considered against certain development criteria which are set out below.

3.2 The main issue of the Preferred Options paper and preceding consultations was that the Core Strategy should provide criteria for the assessment of all new mineral developments. The consultations identified key areas which developers would need to identify and assess the impacts of their proposals at the application or allocation stage.

3.3 The Policy Principle relating to all development seeks to incorporate all National and Regional requirements and statutory obligations. The Warwickshire County Council Statement of Community Involvement (SCI) sets out how the council will consult on both the plan making process and the processing of planning applications. By conforming to the SCI and considering all stakeholder and consultee comments, the consultation process should be considered sound and bring out all relevant issues.

3 Issues

Policy Principle 1

Criteria for assessing Mineral Development Proposals

Proposals put forward for all Site Allocations in the Minerals Development Core Strategy and planning applications will be assessed against the demonstrated need for the mineral, the provisions of the Development Plan and the potential impacts and proposed mitigation measures on the following criteria:

1. Local Communities - amenity impacts.

2. The Transport Network

3. Human Health (dust, noise and air quality etc.)

4. The Cumulative impact of different minerals developments

5. Sites of designated International, National, Regional and Local Importance relating to the historic and natural environment including:

- **Special Areas of Conservation (SAC)**
- **Sites of Special Scientific Interest (SSSI)**
- **Sites of Importance for Natural Conservation (SINCS) and potential Sites of Importance for Nature Conservation (pSINCS)**
- **Local nature conservation sites (Ecosites)**
- **Local Nature Reserves (LNRs)**
- **Areas of Outstanding Natural Beauty (AONB)**
- **Special Landscape Areas (SLA)**
- **Regional Important Geological Sites (RIGS)**
- **Areas of archaeological potential including Scheduled Ancient Monuments and sites on the Warwickshire Historic Environment Record (HER)**
- **Historic Parks and Gardens**
- **National Trust Properties**
- **Listed Buildings**
- **Conservation Areas**
- **Registered Battlefields**

6. Land supporting habitats identified in Biodiversity Action Plans

7. The presence of protected and/or Biodiversity Action Plan species.

8. Landscape Character Areas.

9. High Value agricultural Land (Grades 1, 2 and 3a)

10. Country Parks

11. Green Belt

12. Public Open Space, Commons and Rights of Way

13 Impact on Climate Change including carbon reduction measures

14. The Hydrological Environment (Groundwater Protection Zones, Pollution Control etc)

15. Contribution to Flood Risk Management and Sustainable Drainage schemes (SUDs).

3.4 All proposals will be subject to consultation to assess the opinions of local communities, interest groups and other interested parties and stakeholder groups.

3.5 During the previous consultation stage many issues were raised in regard to this issue. The Preferred Options consultation and emerging Government Policy and Guidance highlighted the need for the possibility of separate policies or at least more analysis relating to the following subject areas:

- Renewable Energy
- Flood Risk
- Agricultural Land Quality
- Cotswold AONB.
- Inert Waste for Restoration
- Climate Change - Renewable Energy

(These Issues will be discussed in greater detail at the end of the Issues section – i.e. issues 16-19.)

Question

11. **Do you agree with Policy Principle 1 (Development Criteria) and are there any other criteria for assessing sites which you feel have not been considered which should be included in this section of the MDF?**

Issue 2 - Extensions to Existing Workings

3.6 Extensions to existing mineral workings can often have less environmental impact and can be more sustainable than new sites. Extensions are defined as new areas permitted for development which are “contiguous with an existing, dormant or un-restored site”.

3 Issues

Extensions and Satellites

In line with current Government Guidance in MPS1 when identifying sites either for allocation in the plan for mineral extraction or in assessing the merits of individual applications, the benefits of extensions to existing sites should be considered. By extending existing operations it may be possible to reduce overall environmental disturbance and avoid the sterilisation of possible reserves by making more efficient use of the mineral.

3.7 An extraction site linked to a processing plant by means of conveyor, road or other means may be classed as a 'satellite' site or operation. It should be noted that satellite sites may still offer less environmental impacts and may be more sustainable than a new stand alone site complete with processing plant, road and infrastructure links etc.

3.8 Extensions to existing mineral workings caused much debate from consultees in past consultations. Having defined what constitutes an extension and a satellite, the policy principle should be retained although slightly modified when considering the potential environmental benefits extensions may offer when assessed against new sites. New submitted sites will be assessed following analysis of feedback from the questions in this document. Although extensions may be more sustainable in most cases, there may also be opportunities to develop new sites, where it can be demonstrated that they may be the more sustainable option.

3.9 One consideration which must be taken into account is the cumulative impact of a number of potential extensions being proposed at the same time. From the strategic site submissions in section 4 of this document it is apparent that in some areas there could be several sites in very close proximity which could lead to development on an excessive scale. While one extension might be acceptable, two or three might be too large. Cumulative impact will be a major factor when assessing sites.

3.10 To ensure the mineral reserves of Warwickshire are sustainably managed with regards to their extraction and long term protection the following general principles will apply:

Policy Principle 2

Extensions to Existing Mineral Workings

Proposals for the extension of existing mineral workings will be encouraged for allocated and un-allocated sites, where contiguous with an existing, dormant or un-restored site, and provided their impacts are environmentally acceptable and in accordance with the development criteria set out in Policy Principle 1.

Site submissions and applications will be carefully assessed against the cumulative impact of developments on local communities.

Question

12. **Do you agree with Policy Principle 2 (Extensions) and what are your reasons for this view?**

Issue 3 - Borrow Pits

3.11 The construction and improvement of major roads and other infrastructure projects often require large amounts of minerals and bulk materials. It can often be more sustainable to obtain locally sourced material from sites adjacent to the area of construction. The advantages of this type of extraction, known as "Borrow Pits" is that it can reduce the need to import minerals by road from existing sites and also conserve resources which would otherwise have to be replaced with new permissions.

3.12 There are several road building projects either permitted, planned or under consideration in the county. These include:

- The Improvements to the Tollbar End Roundabout (A45/46 Junction near Coventry Airport – est 2010)
- The Rugby Western Relief Road (nearing completion)
- The M40 Bypass at Junction 15 – A46 (work begun in 2008)
- The Dosthill Bypass (no date).
- Barford Bypass - recently completed

3.13 It is only possible to consider suitable sites for the location of borrow pits once the details of any proposal has been confirmed so it is not feasible to identify likely sites in the Minerals Development Framework. Proposals for borrow pits will be assessed against the provisions of the development plan and should link the full restoration of the site to the completion of the construction project.

3.14 In line with the best practices of sustainable resource management the original Policy Principle from the previous Preferred Options document referring to Borrow Pits has been retained.

Policy Principle 3

Borrow Pits

Applications for borrow pits will be considered against the policies of the Development Plan and in particular the Development Criteria set out in Policy Principle 1. The proposal should achieve the following:

- **minimise the impact of transportation by road of materials and minerals required for the construction of the development**
- **conserve existing permitted reserves of minerals and be fully restored as part of the main development.**

3 Issues

Question

13. **Do you agree with Policy Principle 3 (Borrow Pits) and what are your reasons for this view?**

Issue 4 - Mineral Safeguarding Areas

3.15 The issue of mineral safeguarding was debated in the previous consultation stage but the issue requires to be assessed again against new planning policy advice set out in MPS 1.

Mineral Safeguarding Areas - MPS1.

3.16 Mineral Safeguarding is a major component of sustainable mineral resource management and MPS1 recognises this fact and states that Mineral Planning Authorities should define Mineral Safeguarding Areas. MSAs should ensure that proven mineral resources are not needlessly sterilised by non-mineral development, although there is no presumption in favour that areas defined in MSAs will be worked.

3.17 It may also be necessary for Warwickshire County Council to define supporting Mineral Consultation Areas (MCAs) which would be areas of known mineral resources but where there has been little assessment. Therefore, MCAs would be defined from information from geological maps but have no information on the quality, extent or likelihood of extraction ever taking place. The purpose of MCAs, like MSAs will be to identify proposals for non-mineral developments which may sterilise viable mineral reserves. MCAs would be identified and sent to the District Councils to be shown in their LDFs, to enable proposals which affect minerals to be flagged up at an early stage.

3.18 District councils will be required to ensure that where applications for developments could sterilise minerals resources, developers should provide a mineral assessment. This assessment will determine the nature of any mineral resource and therefore provide evidence as to how the development should proceed if permission is granted. Proposals which would sterilise proven mineral reserves would then either be recommended for refusal by the MPA or the viability of prior extraction would be assessed.

3.19 Currently Warwickshire County Council have defined the aggregates for MCAs and these were produced prior to the Minerals Local Plan (1995). The District Authorities have all been provided with copies of the MCAs and therefore know that the County Council should be consulted on all Planning Applications falling within the MCA, with the following exceptions:

- Development in accordance with the allocations of an adopted or deposited local plan
- Householder applications such as extensions to houses
- Reserved Matter applications unless the Mineral Planning Authorities specifically requested consultation at the Outline stage
- Minor Developments, such as fences, walls, bus shelters
- Applications for listed buildings unless specifically requested
- Advertisement applications

- Extensions or alterations to an existing use/building which do not fundamentally change the scale and character of the use/building, but sub-division of a dwelling will require consultation
- Developments requiring permission by virtue of a Direction under Article 4 of the Town and Country Planning General Permitted Development Order 1995

Mineral Safeguarding in Warwickshire

3.20 In line with MPS1, Warwickshire will develop a Mineral Safeguarding Map for the county which can then be used as a development tool for the County council and the 5 district and borough councils.

3.21 A Mineral Safeguarding Map for Warwickshire is being developed with the British Geological Survey (BGS) and will be completed in March 2009. The work is being carried out in consultation with the minerals industry to ensure that all potentially viable mineral resources are identified on the map in order to offer some protection from non-mineral type developments.

3.22 Warwickshire County Council will then produce Mineral Safeguarding Areas and Mineral Consultation Areas where appropriate, based on the best available geological and mineral resource information. These maps will be made available to the Local Planning Authorities and are required to be contained in their Local Development Documents. For ease of use and understanding it is envisaged that the MCAs will follow the same broad boundaries as the MSAs if possible.

3.23 It is therefore considered that the Policy Principle on Mineral Safeguarding Areas be amended to the following:

Policy Principle 4a

<u>Mineral Safeguarding</u>

Minerals Safeguarding Areas and Mineral Consultation Areas will be drawn up in conjunction with detailed surveys by the British Geographical Survey and the proposed areas will be put out for consultation in the new Preferred Option document (the next consultation stage).

Planning Permission should not normally be granted for development contained in such areas where the sterilisation of mineral resources is likely to occur unless

- **the applicant demonstrates that the mineral has no current or future value as a resource**
- **extraction of the mineral would be unviable due to the nature of the deposit**
- **the mineral can be extracted satisfactorily prior to the development**

and it is demonstrated that there is a specific need for the development which over-rides the need for mineral safeguarding.

3 Issues

Safeguarding of Railheads and Wharves

3.24 In encouraging more sustainable modes of transport in the minerals industry, MPS1 recommends the safeguarding of rail heads, wharves and other storage and handling facilities for the bulk transport by rail, sea or inland waterways of mineral. This would be especially relevant for the transport of primary aggregates, recycled aggregates, coal and other minerals used and transported in large quantities.

3.25 In Warwickshire there is the possibility that potentially suitable sites for future rail heads may be constrained if sensitive developments such as housing are permitted nearby. Safeguarding of such sites could be achieved through consultation with the local District and Borough Councils which could also protect these areas in their Local Development Frameworks.

3.26 Such sites would be identified as part of the mineral safeguarding process being carried out by the BGS and they would then be offered some protection from the encroachment of other non-mineral developments. Despite previous consultations no sites have so far come forward. However, if any suitable facilities are identified in the plan process they will be assessed and included in the next stage of the plan.

Policy Principle 4b

Safeguarding of Railheads and Wharfs

The protection of existing railheads and infrastructure and other potential sites for the bulk transport of minerals should be promoted through the Minerals Development Framework.

Question

14. **Do you agree with the approach taken on Policy Principle 4a and 4b (Mineral Safeguarding of sites and railheads and wharfs)?**

Question

15. **Should there be a differentiation between Mineral Safeguarding Areas and Mineral Consultation Areas or should they follow the same broad boundaries?**

Question

16. **Are you aware of any potential infrastructure sites which are required to be safeguarded from non-mineral development?**

Issue 5 - Buffer Zones

3.27 Buffer Zones are areas of land surrounding settlements and sensitive properties where no extraction or mineral related development would be permitted. Buffer Zones could also be drawn around sites of archaeological or ecological value, to protect them from any adverse impacts resulting from mineral development. They can therefore provide a variety of different functions centred on the protection of a sensitive receptor.

3.28 The Preferred Options consultation supported a blanket approach to buffer zones and set a standard distance in a policy which would apply to all mineral developments. Specifying a standard distance for buffer zones was seen as a way of giving guaranteed protection from the potential impacts of mineral extraction.

3.29 However quarry operators and some other respondents thought that Buffer Zones for new developments should be determined on a 'site-by-site' basis allowing for the nature of individual sites to be fully studied and to propose buffer zones tailored to the particular proposal. This approach at a time of crucial importance for the protection of scarce resources, requires that mineral resources are not unnecessarily sterilised by setting an arbitrary distance which can not be backed up by strong evidence.

3.30 On balance, after studying the previous consultee responses and further researching this issue, the county council still believes there should be no minimum distance for buffer zones and that they should be assessed at the application stage and tailored for individual sites. This would still offer protection for communities and important environmental assets, but not cause the unnecessary sterilisation of mineral resources. Therefore, the Policy Principle will be amended to now read as follows-

Policy Principle 5

Buffer Zones

The Minerals Core Strategy will state no minimum distance around settlements, properties and other important sites but stand off zones around mineral developments from sensitive receptors will be decided at the application stage on a site by site basis.

Question

17. **Do you agree with Policy Principle 5 (Buffer Zones) and what are your reasons for this view?**

3 Issues

Issue 6 - Transport

3.31 The majority of mineral operations will involve the bulk movement of minerals and materials from the point of extraction to the point of use or for processing. Consequently, the siting of mineral sites close to where they will be used, is imperative both in terms of sustainability and resource management.

3.32 The most common, easily accessible and cost effective method of transporting aggregates and other bulk materials from quarries, is by road. The resulting large volumes of associated heavy goods vehicles using the road network can have a negative impact on the local environment. The use of lorries also increases the carbon footprint of mineral extraction, so there is a pressure for the minerals industry to look at using alternative modes of transport. From the consultation responses to the preferred options there was general support for the use of rail and waterways for the transportation of minerals but also a general acceptance that for the majority of mineral developments in Warwickshire, such alternatives would be unfeasible. It is clear that in Warwickshire opportunities for the use of railways, canals and other watercourses are very limited and currently only coal mined at Daw Mill Colliery and limestone transported to Rugby Cement works utilises the rail network.

3.33 In order to ensure that all options have been fully assessed, it is proposed that all new developments should have a detailed traffic impact assessment showing that where HGVs are the chosen transportation option they must avoid unacceptable impacts on local communities. This assessment should also consider road and rail transport modes and clearly demonstrate they are unfeasible. Warwickshire has a county lorry advisory route. All sites using road as the preferred method of transporting minerals should have good access to this primary transport network.

3.34 Where HGVs are going to be widely used developers must expect to enter in to legal routing agreements or the implementation of road improvement schemes to reduce the impact of traffic movements and ensure that the access route linking the development to the principal road network is of the required standard of the relevant Highways Authority.

3.35 The policy principle for Transport has been refined as a result of the consultation and now reads as follows:

Policy Principle 6

Transport

Sites put forward for allocation must have good access to major roads and demonstrate that there will be no unacceptable adverse impact on communities.

Proposals for new mineral developments will have to be accompanied by a traffic impact assessment and demonstrate that alternative forms of transport (rail and water) have been given full consideration.

Where road haulage will be the method for the bulk transportation of minerals from a site, it should be located in close proximity and have good access to the Warwickshire Advisory Lorry Route.

Due to the nature of their geological occurrence, coal, fireclays and building stone may be located at a distance from the roads identified in the Advisory Lorry Route and in such circumstances an acceptable route should be agreed between the operator and the Highway Authority to ensure unacceptable environmental impacts are avoided.

Question

18. **Do you agree with Policy Principle 6 (Transport) and what are your reasons for this view?**

Issue 7 - Sand and Gravel

3.36 Current National and Regional guidelines state that Warwickshire should make available 1.043 million tonnes of sand and gravel a year to ensure that the construction industry has a secure supply of essential materials. The Minerals Core Strategy will cover the period up to 2026 and so the requirement is for Warwickshire to provide for an additional 18 million tonnes of sand and gravel approximately.

3.37 MPS1 contains an Annex on Aggregates and reiterates the importance of the 2003 National Guidelines for Aggregate Provision in England and Wales. MPS1 also states that Mineral Planning Authorities should use the length of the landbank of permitted reserves for sand and gravel as an indicator of when new permissions are likely to be needed. The landbank indicator for sand and gravel is given as 7 years.

3.38 The West Midlands Regional Aggregate Working Parties Annual Survey for 2006 has just been published and the data for Warwickshire has been used below.

3 Issues

Calculation of Sand and Gravel Provision until 2021.

3.39 The Guidelines for Aggregate production published in 2003 cover the period of 2001 to 2016 but the MDF will run until 2026. To cover the period of time between 2016 and 2026 with regard to predictions for aggregate use, government has advised MPAs to assume there will be no alterations in demand and continue to extend the 2016 figure up to 2026. This means that until there is a formal change in the National Guidelines for aggregate production, the apportionment targets for all MPAs will be consistent with current values until 2026.

Warwickshire's Permitted Reserves for Sand and Gravel 2006	= 6.2 mt (est)
Annual Apportionment (over plan period)	= 1.043 million tonnes
Landbank (31.12.06)	= 5.9 years (est)
Total Sand and Gravel Provision for 2026 minus 2009	= 1.043 x 17 years
	= **17.7mt** to be provided over the plan period

3.40 Warwickshire's current land bank for 2006 can be estimated to be under 7 years. It is clear that Warwickshire will have to make provision for approximately 18 million tones of sand and gravel over the period until 2026. The production of 18 million tonnes would also allow for the landbank to remain around the recommended 7 years of supply.

3.41 Therefore, Warwickshire will have to provide additional sites for sand and gravel extraction over the plan period to accommodate a possible 18 million tonnes of material. It may also be prudent in allocating sites to build flexibility into the plan and to consider designating reserve sites as Preferred Areas, should the demand for sand and gravel increase at any point until 2026. This would not translate to an over provision of permitted reserves as the status of the landbank would always be a consideration on judging any application.

3.42 The current Minerals Local Plan for Warwickshire allocates Preferred Areas for extraction which are areas where specific information on the economic viability of the deposit have been assessed. These sites therefore have been examined both against environmental constraints and deposit quality and their identification confers a general presumption in favour of a proposal for extraction. The current Minerals Local Plan also indicates Areas of Search, which is an indication that these sites have mineral potential but there has not been the same investigation to prove the quality of the deposit and therefore industry is encouraged to assess their economic viability. Areas of Search have been through the same environmental constraints process as Preferred Areas.

3.43 It is also clear that sand and gravel are of strategic importance to Warwickshire and crucial to the delivery of the Core Strategy, therefore allocated sites will be made for sand and gravel production in the Core Strategy.

Policy Principle 7

Sand and Gravel

The MDF will seek to allocate adequate sand and gravel sites to enable the production of 18 million tonnes of sand and gravel over the plan period.

Applications for the extraction of sand and gravel will be considered within the context of the assessed regional demand and against the development criteria for sites set out in Policy Principle 1, with the aim of maintaining a sufficient landbank for the county and providing long term security of supply.

Question

19. **Do you agree with Policy Principle 7 (Sand and Gravel) and what are your reasons for this view?**

Issue 8 - Crushed Rock

3.44 Like sand and gravel, crushed rock for the construction industry has national guidelines relating to the amount of material required to maintain economic growth.

3.45 Ancient rocks ranging from Pre-Cambrian to Ordovician age outcrop over a small area around Nuneaton and Atherstone. These rocks are much older than the surrounding Carboniferous Coal Measures and Triassic Sandstones and shales. They comprise of hard Precambrian and Ordovician igneous diorites and Cambrian Sandstones. These hard rocks have specific physical properties which make them ideal aggregates for use in road construction and surfacing and the outcrop of the rocks can almost be traced from the location of old and current mineral workings.

3.46 Two quarries are currently in operation around Nuneaton: Mancetter and Griff Quarries, which extract the Ordovician diorites which are igneous rocks which were originally intruded into older Cambrian Shales. Both rock types are used as aggregates but the diorite is ideal for roadstone and other applications requiring high specification aggregate. Jees and Boon quarry has large reserves of hard rock but is currently non-operational but all three quarries are ideally located around the central England motorway and principal road network to serve as a source of road coating material.

Crushed Rock Reserves in Warwickshire (2006)

3.47 In line with national and regional guidelines Warwickshire in conjunction with Staffordshire, has to make provision for the supply of 1.4 million tonnes of crushed rock a year now that production from the West Midlands County (Edwin Richards Quarry, Sandwell) has all but ceased. The West Midlands Regional Aggregate Working Party's Annual Survey for 2006 shows that Warwickshire has 30,800 million tonnes of permitted reserves of crushed rock.

3 Issues

Total Permitted Reserves 2006	30,800 (million tonnes)
Annual Apportionment	1.4 (million tonnes)*
Current Landbank	35 years

** This figure has been combined with Staffordshire's figure in the West Midlands RAWP for reasons of confidentiality.*

3.48 Like sand and gravel production the National Guidelines for aggregates (2003) run until 2016 but can be extended to 2026 to cover the plan period of the Minerals Development Framework. Therefore, if there are no further increases required in the provision of crushed rock, the current landbank in Warwickshire will be around 20 years. MPS1 states that the landbank for crushed rock should be at least 10 years and Mineral Planning Authorities should take into account other factors including location to markets and productive capacity. The high specification aggregates provided by the crushed rock quarries in Warwickshire are of regional importance and changes in demand due to increases in road building and other major developments may increase pressure on the supply of these minerals. In the case of crushed rock therefore it is important to build greater flexibility in to the plan.

Future Supplies

3.49 The landbank is sufficient to remain above the 10 year recommended target for permitted reserves over the plan period at current production and apportionment levels. However, as previously indicated there may be increasing demand for crushed rock over the coming years due to increases in house building and major infrastructure projects which may cause current estimates of crushed rock demand to be revised upwards. In order to ensure efficient use of existing reserves of high specification aggregates and provide the necessary flexibility to respond to changes in demand the allocation of sites within the plan was considered to be the best option should sites come forward.

3.50 The exposed and accessible reserves of crushed rock around Nuneaton are very limited due to the encroachment of other developments and therefore a high degree of protection should be granted to safeguard these high specification aggregates. The allocation of sites in the plan, which would necessarily be extensions to existing operations where viable would serve to protect reserves of rock, inform local communities of possible future mineral workings and create flexibility in the MDF to cater for possible increases in demand for crushed rock from Warwickshire.

3.51 The allocation of crushed rock sites for the production of high quality aggregates from the Nuneaton area will therefore be considered desirable in the Core Strategy but where no sites are brought forward by the industry the plan will need to ensure that applications are assessed against regional demand and the landbank. Applications for crushed rock from other materials such as limestone will be judged on their own merits but no allocations will be made in the Core Strategy. Crushed rock production from limestone, particularly in the Cotswold AONB will not be encouraged.

Policy Principle 8

Crushed Rock

Applications for the extraction and processing of crushed aggregates will be considered within the context of the assessed regional demand with the aim of maintaining a sufficient landbank for the county and providing long term security of supply of high specification aggregates.

High Quality Aggregates for Crushed Rock will be safeguarded against non- mineral development.

There will be no allocations for crushed rock produced from limestone. There will be a presumption against the production of large scale Crushed Rock production in the Cotswold AONB.

Question

20. **Do you agree with Policy Principle 8 (Crushed Rock) and what are your reasons for this view?**

Issue 9 - Secondary and Recycled Aggregates

3.52 The Minerals Core Strategy has identified the importance of secondary and recycled aggregates in reducing the need for primary extraction. There is a clear distinction between recycled aggregates such as construction and demolition waste and secondary aggregates such as mining and quarrying waste and overburden. Respondents at the previous consultation stage requested that a greater distinction was made between recycled and secondary aggregates because of their clearly differing properties.

3.53 Secondary and recycled Aggregates from construction and demolition waste or other industrial processes including mineral extraction may have suitable physical or chemical properties which allow them to be used as an alternative to primary aggregates. It is Government policy to encourage the greatest possible use of these types of alternative aggregates so as to reduce the demand for primary extraction. The National Guidelines for Aggregate Provision in England 2003 factor in targets for annual production of alternative aggregates and like targets for primary aggregates these figures are monitored annually and can be revised if necessary.

3.54 Policies for the processing of construction and demolition waste, road planings and other wastes suitable for aggregate production will be contained in the Waste Development Framework. However, it is important to link these activities with the Minerals Development Framework as the production of recycled aggregates will reduce the need for primary extraction and it may be possible to co-locate mineral extraction with secondary and recycled materials processing facilities.

3 Issues

3.55 Some mineral wastes and overburden material from quarrying and mining activities may have the potential to be a source of secondary aggregate materials. By processing these by-products from mineral extraction into useable products the need for primary minerals can be reduced.

3.56 The processing of mainly recycled materials particularly into aggregates can be best achieved at sites both within the urban areas and in existing quarries mainly in rural areas. The processing, particularly of construction and demolition waste close to its point of origin, will limit the use of bulk transportation on the road network but there may be opportunities to site such facilities in existing quarries which are close or have suitable transport links to urban areas. Proximity to the source of the material brought into the site for processing will be a major consideration as well as all other associated environmental impacts when assessing a proposal for the siting of a recycling operation within a primary mineral site.

3.57 The use of secondary aggregates from mineral spoil, over-burden and other processing can reduce the need for extraction from existing sites and so have the potential to reduce the overall impact of mineral extraction. Secondary minerals may however result from the stripping of overburden to access the target mineral and their use as an aggregate may have implications for the final restoration of the development which would need to be assessed as part of the planning application process.

Policy Principle 9a

Recycled Aggregates

Facilities for the reception, production, treatment and distribution of waste materials for the production of recycled aggregates will be encouraged in existing mineral sites where their additional environmental impacts are considered acceptable.

Applications relating to the reception, production, treatment and distribution of recycled aggregates will be fully assessed for their effect on:

- **the reduction of the need for primary minerals**
- **promoting the movement of waste material up the waste hierarchy, reducing the need for disposal**
- **agreed restoration schemes for mineral workings**
- **cumulative impacts on the environment and existing communities**
- **the transport network**

Question

21. **Do you agree with Policy Principle 9a (Recycled Aggregates) and what are your reasons for this view?**

Issues 3

Policy Principle 9b

Secondary Aggregates

Proposals for the processing and exportation of secondary aggregates produced from mining and quarry activities should be supported where they:

- **play an active role in the reduction of primary aggregate use**
- **do not compromise existing restoration schemes**
- **increase, by their use, the viability of extraction of primary minerals such as brick clay or coal and have no cumulative or adverse impacts on the environment or local communities**

Question

22. **Do you agree with Policy Principle 9b (Secondary Aggregates) and what are your reasons for this view?**

Issue 10 - Brick Clay

3.58 The brickworks at Kingsbury serves a regional and national market and produced 67 million brick items in 2007 from 210,000 tonnes of locally extracted Etruria Marl. The plant has current reserves predicted to last 17 years and will require new permissions over the life time of the Minerals Core Strategy in order to maintain permitted reserves equivalent to 25 years of production. This allows for long term investment in the plant to be undertaken and ensure it can be operated within existing and emerging environmental legislation.The Core Strategy will contain site allocations adjacent to the existing brickworks if they are environmentally acceptable and economically viable.

3.59 Warwickshire has a long history of small scale brickworks, which served the local market and made best use of the available clays. With the construction of the canal network and later railway infrastructure, brick production became more centralised so the best clays could be mass produced into bricks and exported around the country. Brick production in Warwickshire is now centred on one large brickworks at Kingsbury which supplies local, regional, national and international markets. The site is currently operated by Wienerburger.

3.60 MPS1 makes specific reference to Brick Clay in Annex 2 and states the Government's national policy objectives which can be summarised as –

- Maintaining and enhancing the diversity of brick clay by making appropriate provision for supply in mineral planning authorities local development documents
- To provide and make available brick clays at a level that reflects the high initial investment and high levels of capital expenditure required to maintain and improve new and existing brick-making plants and equipment
- To safeguard and where necessary, stockpile supplies of clays, especially specific "premium" brick clays such as those from the Etruria Formation and fireclay

3 Issues

3.61 In the previous consultation, the majority of consultees favoured the option, which would encourage the inclusion of allocated areas for extraction of brick clay and insure that the MDF would include a policy relating directly with any proposal for brick clay extraction. Following the theme of planning for the sustainable use of minerals and recognising the importance of brick clay, the MDF should look to include potential clay resources in Mineral Consultation Areas to prevent sterilisation of the remaining resource.

3.62 The Annex to MPS1 on brick clay specifies that new and existing brick manufacturing plants should have permitted reserves capable of supporting 25 years of production so as to allow for plant improvements and maintenance. The Kingsbury Brickworks has a current reserve of around 17 years so will need to look to securing more reserves over the time period of the MDF. With proposals necessary to secure the long term future of the Brickworks then the allocation of acceptable sites is the prudent way in which the MDF can plan for future brick clay extraction.

3.63 MPS1 states that it would be generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is to supply then MPAs should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing operations to maintain adequate long term supplies. There is the potential to investigate further extraction of Etruria Marl at the Kingsbury site as well as other potential clay formations of Mudstones of Shales, such as the Mercia Mudstone.

Policy Principle 10

Brick Clay

The allocation of future areas of extraction to support the reserves for Kingsbury Brickworks will be included in the core strategy if submitted.

Potential clay resources in the county which have a realistic chance of being exploited for brick making in the future, will be identified and safeguarded as part of the Mineral Safeguarding Policy and map.

New applications for brick clay extraction will be assessed against their potential impacts on the development criteria set out in Policy Principle 1.

Question

23. **Do you agree with Policy Principle 10 (Brick Clay) and what are your reasons for this view?**

Issue 11 - Cement

3.64 Cement has been produced in Warwickshire for more than 150 years and has traditionally been based around the Southam and Rugby areas in the east of the county. The raw material for this industry has been the Jurassic Blue and White Lias Formations which provided the required limestone and shale for the manufacture of cement.

3.65 The one remaining manufacturing plant in the county is situated in Rugby and produces around 1.2 million tonnes of cement. The plant was extensively modernised by Rugby Cement and later RMC in 1999 which coincided with the closure of its sister operation at Southam. The plant is now of national importance, due to its location, proximity to good transport infrastructure and large cement output.

3.66 Rugby Cement Works is supplied with shale and clay from two operational quarries, one in Southam and the other adjacent to the plant itself. Due to the geochemical nature of the local limestone, chalk in the form of a slurry is piped up from Kensworth Quarry in Bedfordshire in order to produce the cement. The plant at Rugby has an expected lifespan of 30-40 years and has permitted reserves of local material of approximately 40 years, after a recent application for an extension to Southam Quarry was approved. The Kensworth site has currently sufficient permitted reserves of chalk to continue supplying Rugby for over 30 years with its permission expiring in 2042.

3.67 National Minerals Planning Guidance 10 (MPG10): Provision of Raw Material to the Cement Industry provides advice to mineral planning authorities on the exercise of planning controls over the provision of raw materials to the cement industry. Contained in this guidance is advice on landbank polices for cement works which should take into account the scale of capital investment in the plant but should aim to keep the permitted reserves of the feedstock minerals at 15 years. Where new kilns or whole new plants have been constructed then the landbank should reflect the level of investment and be 25 years of the required mineral. MPG10 also states that Development Plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide maintenance of landbanks for cement works over the plan period.

3.68 Clay reserves equate to around 30 years at current production rates but over the plan period it may be necessary to allocate future areas of extraction. It is expected that the Regional Spatial Strategy will require a large increase in growth in the sub-region especially around Rugby and Coventry and this may result in levels of production being increased. In order to maintain sufficient supplies of suitable material to allow for the long term management of the works and ensure guaranteed reserves of raw materials for the future it is proposed to allocate strategic sites where possible.

3 Issues

Policy Principle 11

Cement

The Minerals Development Framework Core Strategy should seek to allocate strategic sites for production of clay for cement manufacturing to ensure the guaranteed future production of Rugby Cement works.

Allocations and future applications for clay for cement production should be assessed against the development criteria set out in Policy Principle 1.

Question

24. **Do you agree with Policy Principle 11 (Cement) and what are your reasons for this view?**

Issue 12 - Coal

3.69 Recent developments in the government's Energy Strategy for the UK mean that coal could have a significant role in providing greater security in the energy sector. Warwickshire has one deep mine at Daw Mill and there are sites which could be exploited by opencast methods in the north of the county. Viable sites for opencast could be allocated in the Core Strategy, if submitted, but there is no evidence that new deep mining operations will occur in Warwickshire during the lifespan of the plan.

Background

3.70 From the previous consultation there was general support for the recognition of coal in the Minerals Development Framework Core Strategy. Its strategic importance as an indigenous source of energy is growing in light of rising oil and gas prices.

Coal in Warwickshire

3.71 Coal has been extracted from Warwickshire since Roman times. The Coal seams which make up the Warwickshire Coal Field are exposed near the surface in the north of the county around the Nuneaton and Atherstone areas, but then sink sharply south in a broad sweep under Coventry, Kenilworth and eventually into Oxfordshire.

3.72 There remains the potential for opencast extraction in the county although there is no current extraction of coal using this method. One remaining underground colliery near Arley extracts from the Warwickshire thick seam from a depth of around 800m under the Corley Moor Area. There are extensive reserves of deep coal which could be exploited as either an extension to the existing operation or from a new colliery in the County.

The UK Energy Policy

3.73 The Energy Act 2008 will implement aspects of the 2007 Energy White Paper: Meeting the Energy Challenge. This White Paper, published on 23 May 2007, sets out the Government's international and domestic energy strategy to respond to these changing circumstances and address the long term energy challenges -

- to put ourselves on a path to cutting CO2 emissions by some 80% by about 2050, with real progress by 2020;
- to maintain the reliability of energy supplies;
- to promote competitive markets in the UK and beyond;
- to ensure that every home is adequately and affordably heated.

3.74 The Energy Bill will update legislation with respect to Carbon Capture and Storage technologies and the infrastructure requirements to ensure security of energy supply for the UK. The Bill recognises that indigenous sources of coal must be protected as a potential source of energy in the future and that by developing Carbon Capture and geological storage techniques it may be possible to reduce CO2 emissions from fossil fuel power stations by up to 90%.

Safeguarding of Coal Resources

3.75 With potential for new opencast sites and opportunities for the continuation of deep mining operations in Warwickshire the Minerals Core Strategy will seek to safeguard all possible viable deposits by including Coal resource information on a Minerals Safeguarding Area. This is considered the most prudent and sustainable method to achieve the long term protection of the county's coal resources for the future and will use the latest coal resource information from the Coal Authority..

Planning Policy for future Coal exploitation in Warwickshire

Deep Coal

3.76 Daw Mill Colliery near Arley in North Warwickshire is one of the last seven deep mines operating in the UK and currently is the largest producer of coal in the UK. It extracts around 3 million tonnes of coal from depths of around 750m – 900m and employs around 540 people. With estimated recoverable reserves standing at around 35 million tonnes the colliery has a projected production life of a further 10-12 years. The coal extracted from Daw Mill is used in the domestic, industrial and power generation markets. The bulk of the material is taken by rail to the power stations at Drax (North Yorkshire) and Cottam and West Burton in the Trent Valley, (Nottinghamshire).

3.77 For Daw Mill to continue operations after its current reserves have been exhausted a new shaft would have to be sunk to supply ventilation and access new areas to the west and south west of Coventry. It would take an estimated 4 years to gain the necessary permissions, sink the new shaft and develop the new working face.

3 Issues

3.78 For the development of a new mine the timescales involved would be around 6 to 8 years from the proposal to the face development and production at the earliest estimate. The cost of this could be around £500m and constitute a major financial investment. No potential sites have yet been discussed but deep mining for coal is possible with today's current mining methods in a large part of the south of the county and into Oxfordshire.

3.79 Continuous consultations with the Coal Authority, the DTI and UK Coal has as yet produced no clear indication as to where new sites for any potential future pit heads or associated shafts would be developed, either in Warwickshire, Solihull or Coventry. However, it would be prudent in light of possible changes in national policy on coal extraction for the Minerals Core Strategy be in a position to deal directly with any such proposals made within life span of the Plan.

Opencast

3.80 The Council has been advised that there are possibly four sites within Warwickshire which have been sufficiently assessed as to suggest that a proposal for extraction could be received in the near future. These potential areas correspond to former British Coal Opencast licences in North Warwickshire which have since lapsed. The sites are located near the settlements of Shuttington, Dordon and Polesworth. It is therefore proposed that due to the possibility of proposals for the working of near surface coal by opencast methods in Warwickshire is likely over the plan period, these sites should be proposed for inclusion in the Core Strategy in the event that any of the sites are submitted and subject to full site assessments.

3.81 Government policy on future coal developments defines a sequential test in dealing with applications for the working of coal and so the Policy Principle on Coal has been amended to reflect this. As government policy is clear on this issue there is no reason to replicate national policy in the Minerals Core Strategy on the justification of coal developments.

3.82 The following Policy Principle for new deep and opencast coal mining developments has been retained and amended after the consultation on the Preferred Options.

Policy Principle 12a

Proposals for New Coal Developments

Applications for all coal developments including, new opencast, new deep mine operations and works such as additional shafts to support existing underground operations should include a full assessment and detailed mitigation measures where appropriate on the following issues:

1. **The proven need for the development in line with the government policy objective of ensuring indigenous, diverse and sustainable sources of energy**
2. **The effects on local communities of the development**
3. **The potential effects of subsidence associated with the underground working of coal**
4. **The impact on biodiversity**
5. **The predicted social-economic effects and benefits**
6. **Noise and dust**
7. **The visual impact of all surface and ancillary developments**
8. **The treatment of surface and sub-surface waters and pollution prevention measures which will be in place**
9. **The disposal of colliery waste and opportunities for its use as a secondary aggregate**
10. **The impact on the diversity and strength of the local workforce**

Sterilisation

3.83 Areas in Warwickshire, which have the potential for opencast coal extraction, are restricted to the north of the county where the coal measures are at or near the surface. Much of the available coal in Nuneaton and North Warwickshire has been either extracted or sterilised by other developments.

3.84 In some areas there remains the potential for opencast operations and where these have been identified, they will be safeguarded to avoid sterilisation by other land uses. Therefore, it may be possible to permit the extraction of coal by opencast methods to avoid sterilisation of resources prior to other non-mineral developments taking place. These sites may not be viable as stand alone opencast operations due to environmental constraints but their removal as part of the main development would avoid unnecessary sterilisation.

3 Issues

3.85 At some sites it may be necessary to remove shallow coal deposits for land stability reasons and where previous shallow workings could seriously affect a planned development. The Coal Authority has information on mining hazards and shallow coal reserves would be the consultative body in such cases.

Policy Principle 12b

Sterilisation of Shallow Coal Reserves

Proposals for Coal extraction which avoids sterilisation of reserves or is necessary for other developments to take place will be encouraged provided they are environmentally acceptable and will not cause harmful and unacceptable impacts.

Fireclays and associated minerals

3.86 Fire Clay deposits are often associated with coal seams and when opencast methods are used to exploit seams this valuable mineral reserve may be exposed and extracted.

3.87 Mineral Planning Guidance 3 recommends that policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way. This avoids economic minerals being sterilised and promotes sustainable mineral extraction.

Policy Principle 12c

Fireclay and Associated Minerals with Opencast Coal Extraction

Where proposals for opencast coal extraction are acceptable the recovery of viable fireclays and other secondary minerals will be required where this activity does not result in any unacceptable environmental impact.

Question

25. **Do you agree with the Policy Principles 12a-c (Coal, Fireclays and Associated Minerals) and what are your reasons for this view?**

Issue 13 - Building Stone

3.88 Local stone has historically been used to varying degree in all parts of Warwickshire and has made a valuable contribution to the character and local distinctiveness of parts of the county. The castles of Warwick and Kenilworth, the stone villages in the south of the county and most parish churches have all been constructed with building stone. Only one stone quarry

is in operation now in the county which currently extracts Ironstone near Edgehill. With such low rates of extraction in the county, it is important to ensure that the Warwickshire encourages the production of stone where it is environmentally acceptable.

Mineral Planning Statement 1 - Annex 3 "Natural Building and Roofing Stone"

3.89 MPS1 Annex 3 recognises the growing importance of this building material. The annex relates to mineral workings producing natural building or roofing stone either as a sole operation or as a by-product of extraction. The Annex gives guidance for policies for the provision of natural stone as well as information on the particular planning considerations which should be taken into account for operations of this nature. It promotes the active safeguarding of known and potential building stone reserves and also states that building stone quarries are often on a small scale when compared to other forms of mineral extraction. Building stone quarries may operate for many years due to their low output of material for specialised end uses.

Restoration

3.90 Building stone is needed to repair old buildings and structures and also to provide material for new buildings and preserve local architectural distinctiveness in Warwickshire. Warwick Castle, Stoneleigh Abbey and many other historic buildings, have been constructed from the local Triassic sandstones, but there is no longer any local source of this material. Stone, required to repair the Castle and the many churches and buildings, is now principally imported from Staffordshire and Shropshire but it is not an exact match and this can present a problem once the restoration has been completed.

Urban Design and Local Distinctiveness

3.91 In the previous consultation building and restoration stone was considered particularly important to all groups of stakeholders including local communities and industry representatives. With no local sandstones available this was a key area of concern for many consultees as there is a mounting problem with sourcing appropriate sandstones for the repair of existing heritage buildings. Also, the role local sandstone and other building stones can play in adding to the quality and distinctiveness of new developments, is evident in Coventry's Priory Place.

3.92 The importance of local stone to Warwickshire's heritage is becoming increasingly important and its use in appropriate modern developments can, if employed sympathetically, greatly add to the local distinctiveness and urban quality of Warwickshire.

Scale of Operations

3.93 A key theme of the consultation responses show that the difference in scale of operations between a building stone quarry supplying small amounts of stone and a crushed aggregate producing quarry should be recognised. The findings of the Symonds Report "Planning for the Supply of Natural Building and Roofing Stone in England and Wales - 2004", recognised the importance of local stone and highlighted the distinction in scale of operation between aggregate quarries and building stone quarries.

3 Issues

Planning Policy

3.94 Although there is support for the allocation of sites for future extraction, the required information on the availability and location of suitable stone is very limited. The nature of the building stone market would be small scale and demand driven, so the MDF should promote proposals for the small scale extraction of local materials to enhance local distinctiveness and provide appropriate restoration materials. The policy principle developed through the previous consultation will be retained as it seeks to encourage appropriate proposals for the extraction of local building stone.

3.95 Due to its importance for restoration projects, preservation and enhancement of local distinctiveness and contribution to specific traditional skills and employment sites for the extraction of building stone have been classified as of strategic importance in the Core Strategy. Therefore, acceptable proposals for sites for future extraction of building and restoration stone will be allocated in the Minerals Core Strategy.

Cotswold AONB

3.96 The importance of the Cotswold Area of Outstanding Natural Beauty (AONB) has been identified through consultation on the previous stages of the MDF in regard to the production of building stone. The Core Strategy will now include a policy which will seek to prevent large scale aggregate extraction in the Cotswold AONB whilst making provision for the small scale supply of local building stone where appropriate. Any proposals in the AONB should be in accordance with the Cotswolds AONB Management Plan. The main thrust of the minerals policy in this document is that future quarry proposals in the AONB must demonstrate an overriding national need. However, it supports the quarrying of local supplies of traditional building stone where environmentally acceptable.

Policy Principle 13

Building and Restoration Stone

Sites submitted for possible allocation or planning applications for the working of local materials and stone for building and restoration purposes will be encouraged where they would:

- **demonstrate that the material would be used in order to preserve or enhance the character of historic buildings, the local distinctiveness of settlements and the historic environment of the original county area of Warwickshire;**
- **be in accordance with the provisions of the development plan and the development criteria set out in Policy Principle 1.**

Small scale quarrying of building stone for local traditional construction, will be encouraged in the Cotswolds AONB, where it can be demonstrated to be in the national need and where it would be environmentally acceptable.

Question

26. **Do you agree with Policy Principle 13 (Building Stone) and what are your reasons for this view?**

Issue 14 - Oil and Gas

3.97 The MDF will seek to provide policies for proposals for gas storage facilities and new coal gas extraction technologies but there is no evidence that any sites need to be allocated for such activities. No sites have been submitted as part of the " Summary Paper and Request for Potential sites in October 2008".

3.98 Warwickshire has little potential for hydrocarbon production and it is not expected that there will be economic interest for oil or natural gas exploration or production within the plan period. The last exploration drilling for oil reserves in Warwickshire was undertaken in 2003 near Wood End, Kingsbury, but the presence of hydrocarbons was not discovered. The exploration licences in north Warwickshire have now lapsed and there is no indication that further exploration of this nature will be forth-coming over the plan period. However, if future applications are submitted it was felt that the MDF should have a policy to address the subject.

Future Hydrocarbon Sources

Coal Bed Methane (CBM)

3.99 Methane and other gases generated in the coal formation process can become contained within coal seams in pore spaces in the rock or absorbed onto the coal itself. These gases have the generic name Coal Bed Methane (CBM) although they can also include ethane, carbon dioxide and monoxide, nitrogen and helium. During coal mining these gases can become released from the coal sometimes in large quantities. This gas is an environmental hazard and a major source of greenhouse gases but can be trapped and used as a potential energy source. CBM can be extracted from unworked coal seams by boreholes which drill into the coal fracturing it and allowing the methane to be released. The boreholes can then capture the methane from the rocks for electricity generation and other industrial processes.

Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM)

3.100 Methane has to be ventilated out of working coal mines to avoid the risk of explosions or risks to human health and this may present opportunities for energy as well as protecting the atmosphere. Once coal mining has ceased methane will continue to be released from the remaining unworked coal. This methane can present an environmental hazard but there also the chance to tap, store and use this gas.

3 Issues

Underground Coal Gasification (UCG)

3.101 Underground coal gasification is the *in situ* conversion of coal into combustible gases; methane, carbon monoxide and hydrogen. This technology involves the pumping of steam (or water) mixed with oxygen (air) into the coal seam by boreholes which reduces the coal to combustible gases which can be extracted by another borehole. This method is currently used in other areas of the world and is still undergoing trials in the UK.

Underground Storage of Natural Gas

3.102 The need for underground storage facilities in the UK has been highlighted in the Government's energy review. Demand for gas fluctuates on a daily and seasonal basis and with the UK increasingly becoming dependant on imported gas the need to store reserve capacity for periods of high demand or restricted supply is becoming more important. Storage facilities must accommodate large volumes of gas safely, and be capable of being recharged or drawn upon quickly to meet demand fluctuations. Gas can be stored in porous rock such as depleted oil and gas fields, aquifers or in large natural or man made underground cavities. These would include old mine workings in the Warwickshire Coal Field as well as the natural sandstones found in the county. The underground storage of natural gas has been included in MPS1 as a direct response to the problem of the security of supply of natural gas.

Planning Policy

3.103 With the inclusion of new coal technologies and underground gas storage in MPS1 this is a clear sign that the government is promoting these sources of energy production for the future. The plan should therefore be in a position to address any application should proposals for these types of development be made to the County. Warwickshire has large reserves of un-worked coal which could be developed in a number of ways. These have been described above although current evidence suggests the level of natural methane contained in the seams in Warwickshire is quite low so there may be little opportunity for Coal Bed Methane production in Warwickshire.

3.104 With little information available on the potential for Warwickshire to develop coal gas production and gas storage facilities (geological or man-made) it is considered premature to include possible site allocations for such developments in the Minerals Core Strategy. It is also clear that the environmental impacts of the Coal technologies cannot yet be fully assessed as the research in this area is still emerging. Therefore, the general thrust of the policy principle set out in the previous Preferred Options document should be retained and amended.

Policy Principle 14

Energy Production from Oil and Gas and Gas Storage Facilities

The Minerals Development Framework Core Strategy will seek to encourage proposals for new coal technologies but ensure that such proposals do not present any unacceptable environmental impacts and do not cause pollution or present an unacceptable hazard to human health.

Applications for the underground storage of natural gas within Warwickshire should be proven to present no threat to human health and public safety whilst also being in the national interest.

Question

27. **Do you agree with Policy Principle 14 (Oil and Gas) and what are your reasons for this view?**

Issue 15 - Restoration

3.105 Mineral developments are temporary land uses and all sites are required to have an approved restoration scheme. Typically, mineral sites offer opportunities for biodiversity benefits and public amenity schemes and the core strategy will continue to encourage such uses.

3.106 The Preferred Options paper identified two issues related directly to the restoration and afteruse of minerals sites. These were 1) Who should be involved in agreeing the final scheme and how would the general public be able to contribute? and 2) at what stage should the restoration scheme be agreed? i.e. could it be part of a general restoration strategy and be agreed under a blanket policy or should each application be treated on its own merits?

3.107 Historically in Warwickshire the majority of mineral sites were restored back to agriculture but over time there has been diversification to water based country parks and wet restorations which have produced areas of enriched biodiversity and public amenity.

3.108 The Preferred Options recognised the importance of ensuring restoration and aftercare schemes were of a high standard when submitted as part of a mineral development proposal. There was also an emphasis on ensuring there was full engagement between the Mineral Planning Authority, local communities, quarry companies, owners and other interested stakeholder groups. The aim was to ensure local residents situated close to proposed mineral sites would have adequate opportunity to fully comment on the application before it was submitted to the Planning Authority. It was also noted that in the long term the landowner is responsible for ensuring the restoration of the land. Therefore, agreement between the quarry operator and the landowner regarding final use is crucial to implement any restoration strategy.

3 Issues

3.109 Another issue raised in the Preferred Options concerned the stage of the planning process at which restoration schemes should be determined. The issue of having an over-arching restoration strategy for the county was discussed as well as committing allocated sites in the Core Strategy to firm restoration schemes.

3.110 Although there are obvious benefits in providing strategic guidance for site restoration schemes in Warwickshire with the plan it was felt that this could be achieved by establishing dialogue between the minerals industry and ecological, agricultural and other interest groups. The Warwickshire Minerals Forums, which started as part of the MDF consultation process, will continue after adoption of the Minerals Core Strategy in order for restoration issues to be discussed in more detail.

3.111 The issue of attaching restoration schemes to site allocations for mineral extraction proved to be unfeasible as there is no precise timescale for developers to come forward with proposals to work these sites. Therefore, by attaching agreed principles of restoration to site allocations this would not allow developers or landowners flexibility in devising appropriate restoration schemes. This flexibility should allow schemes to take account of all government policies, biodiversity objectives, agricultural pressures and other factors which may change over the life-span of the Core Strategy. Therefore as part of the "Request for Sites" consultation we have asked operators to give a general indication of the final desired restoration for each scheme. By fully engaging with all interested parties from the pre-application stage for each mineral extraction proposal, opportunities for a wide range of environmental and amenity benefits can be explored.

3.112 It is now proposed to combine the previous two previous Key Issues and Policy Principles relating to Mineral Restoration into one all encompassing set of policy principles.

Policy Principle 15

Restoration of Mineral Sites

All proposals for mineral developments will have approved restoration and after use schemes which should be of a high environmental standard and be drawn up through consultation between the Mineral Planning Authority, the operator, landowner, local community, agricultural and ecological groups and other agencies and interested stakeholder groups.

The Warwickshire Minerals Forum will continue after the Mineral Development Framework process has ended, to provide a regular forum where restoration issues can be discussed.

Standard restoration schemes should be agreed at planning application stage rather than at site allocation stage.

Restoration schemes for mineral developments must make a positive contribution to agreed biodiversity action plan targets.

Question

28. **Do you agree with Policy Principle 15 (Restoration) and what are your reasons for this view?**

Issue 16 - Agriculture

3.113 Protecting areas of high grade and most versatile agricultural land is becoming increasingly important in view of the current need to increase food production whilst nationally our movement away from self sufficiency has led to vulnerability to price increases. The issue was identified in the Preferred Options consultation and is supported by Planning Policy Statement 7 (Sustainable Development in Rural Areas). Therefore, it is now considered important to address the issue here.

Agricultural Land Classification

3.114 The Agricultural Land Classification (ALC) provides a framework for defining land according to the extent to which its physical or chemical characteristics impose long term limitations on agricultural use. The limitations can operate in one or more of four principal ways: they may affect the range of crops which can be grown, the level of yield, the consistency of yield and the cost of obtaining it. The classification system gives considerable weight to flexibility of cropping, whether actual or potential, but the ability of some land to produce consistently high yields of a somewhat narrower range of crops is also taken into account. (Agricultural Land Classification of England and Wales - Revised Guidelines and criteria for grading the quality of agricultural land 1998).

3.115 The ALC system classifies land into five grades, with grade 3 subdivided into Sub-grades 3a and 3b.

Grade 1	Excellent
Grade 2	Very good
Grade 3a	Good
Grade 3b	Moderate
Grade 4	Poor
Grade 5	Very poor

3.116 Land quality varies across Warwickshire and the ALC system provides a method for assessing the quality of farmland which can assist the planning system in reaching informed decisions on developments which may impact upon farmland.

3.117 The best and most versatile land is defined in PPS7 as Grades 1, 2 and 3a and the potential impacts of planning applications and developments on this land should be considered alongside all other sustainability considerations such as biodiversity, landscape, accessibility of infrastructure, the protection of soil and natural resources and economic and social issues.

3 Issues

3.118 Ideally, developments which will affect agricultural land should be sited on areas of poorer land quality, (grades 3b, 4 and 5) so as to minimise the loss of higher quality land. However, minerals can only be extracted where they occur and in the case of surface sand and gravel deposits may actually provide well drained quality soils. Therefore in some cases development on higher grade agricultural land may be unavoidable.

Agricultural Land Classification Statistics for Warwickshire (Defra) *

Grade	Hectares	% Age
Grade 1	105	0.1
Grade 2	23,587	11.9
Grade 3	147,402	74.5
Grade 4	15,712	7.9
Grade 5	193	0.1

* These ALC statistics related to maps which were created before the sub-division of Grade 3 into 3a and 3b.

3.119 North Warwickshire has the only Grade 1 land in the county and also has the largest proportion of Grade 2 land than the other districts. In the absence of collated information on the breakdown of 3a and 3b land it would therefore be prudent to require all applications for mineral development to undertake a detailed agricultural land assessment.

3.120 Mineral Planning Statement 1(MPS1) reiterates guidance contained in PPS7 in that it states that where significant development of agricultural land is unavoidable, planning authorities should seek to use areas of poorer quality land in preference to that of higher quality, except where this would be inconsistent with other sustainability considerations. MPS1 also makes it clear that where higher grades of agricultural land have been affected by mineral extraction then a 'high standard of restoration would be required'.

3.121 It would not be in accordance with Government policy to rule out areas of high quality agricultural land for mineral extraction in the Core Strategy as it could sterilise large reserves of sand and gravel and other minerals. However, reports and studies from Defra (and Maff) show that the restoration of high quality land is possible if planned and managed effectively. However sites will be assessed in terms of their sustainability through a Sustainability Appraisal (SA) and loss of agricultural land of higher value (defined in the SA as "soil resources") will be considered to be a factor which is not desirable. The loss of a "soil resource" will have to be balanced against other SA objectives.

3.122 The report "Evaluation of mineral sites restored to agriculture, Maff/Land Research Associates June 2000" studied the restoration of 41 mineral sites and concluded that-

"of the 34 sites that started off as best and most versatile agricultural quality, approximately half had maintained or improved their pre-working grade when sampled at the start of their after care period. The majority of those that had maintained or improved grades were in sites investigated in the last two years of the project, implying that standards have been improving over the period of research".

3.123 Further supporting documents which offer developers and landowners guidance in the restoration of mineral workings to agriculture are:

- Defra - Guidance for Successful Reclamation of Mineral and Waste Sites - (August 2004)
- Maff - Good Practice for handling Soils (August 2000)

3.124 While traditionally agriculture was the preferred means of restoration it may not always provide sufficient social or environmental benefits in the long term. Therefore, the Core Strategy is putting forward the premise that the extraction of minerals should be encouraged in areas of lower agricultural land quality. However, where higher grade agricultural land, classified as 1, 2 or 3a, will be disturbed, then it should be restored to at least its original classification and where possible to enhance it. Any agricultural restoration must also demonstrate that it can meet agreed Biodiversity Action Plan targets.

3.125 In addition it may not always be in accordance with the Waste Hierarchy or the Warwickshire Waste Strategy in terms of discouraging infill with inert waste. Therefore, we are proposing that where restoration requires landfill of inert waste for an agricultural end use, to reduce the amount of waste required, there should be a presumption that lower than original ground level restoration will be a preferred approach. This would reduce the amount of infill material required and enable more material to be recycled in line with the principles of the Waste Hierarchy and the emerging Warwickshire County Council Waste Strategy.

3 Issues

Policy Principle 16

Agricultural Land

All proposals will be required to provide a soil and agricultural land quality survey, as part of any proposal or submission.

When assessing sites for submission or planning applications, the use of lower quality agricultural land should be encouraged ahead of higher quality land (Grades 1, 2 and 3a).

Where Grade 1, 2 and 3a agricultural land is affected by mineral extraction it must be restored to at least its original land classification.

Question

29. **Do you agree with Policy Principle 16 (Agricultural Land) and what are your reasons for this view?**

Issue 17 - Inert Waste

3.126 This issue is closely tied in with Issue 16 Agriculture. The increasing use of Construction and Demolition Waste as a recycled aggregate will mean that there is less material available for restoration schemes which are dependent upon it. Two quarries in the county have had to extend their restoration schedules because operators have stated that there is insufficient inert waste available. Unless the Core Strategy addresses this issue fully, the county could end up with large numbers of quarries producing little mineral which are never properly restored. This is unfair on the communities that are situated close-by, which have had to live with a quarry close at hand and then never see the benefits of the agreed restoration in a suitable timescale.

3.127 It is also the more sustainable option to encourage the re-use and recycling of construction and demolition waste as construction aggregates and to minimise the amount of primary aggregates which are required to be extracted. This is supported by guidance in Mineral Planning Statement 1 and the principles of the Waste Hierarchy. However, it is accepted that some inert wastes will be required to restore agricultural land to a suitable standard after extraction and that there will also be a need for some disposal of waste by landfilling especially for certain materials which cannot be recycled.

In using this approach there may be more opportunities to plan for uses other than agriculture. These might include the creation of flood attenuation areas and flood storage capacity areas. There may also be opportunities for increased biodiversity using farming methods which are compatible in areas of land which will flood periodically.

Importation of Inert Waste for Restoration of Mineral Workings

3.128 In order to promote the re-use of construction and demolition waste and in recognition that some restoration schemes are dependant on inert waste, the MDF will seek to encourage the importation and disposal of inert waste for quarry restoration only for the reinstatement of Grades 1, 2 and 3a agricultural land, and that the original grades be achieved where agriculture is the agreed afteruse. For lower quality agricultural land other types of restoration should be encouraged. This approach is already highlighted in the "Agriculture" Policy Principle in the previous section.

3.129 This policy would promote the most effective resource management for waste in the county and also support the restoration of valuable agricultural land where required. It should also be made clear that applications for the restoration of quarry workings by landfilling will have to comply with the policies in the Waste Development Framework.

Policy Principle 17

Inert Waste in Mineral Restoration

Policies in the emerging Minerals Core Strategy regarding mineral restoration will seek to discourage the use of landfilling in accordance with the Waste Hierarchy. It should be for the developer or operator to demonstrate that there is a need for the material to be used for infill as opposed to being recycled. In this respect there will be close linkages between the Minerals and Waste Local Development Frameworks.

There will be a presumption that where sites are restored by infilling of inert waste, they should be restored to lower than existing ground levels to reduce the amount of waste for landfill. In situations where this is not feasible the applicant must demonstrate the reasons for this.

Where land is restored by infilling with inert waste any scheme must provide biodiversity benefits through a final restoration scheme making a positive contribution to agreed Biodiversity Action Plan targets.

Question

30. **Do you agree with Policy Principle 17 (Inert Waste) and what are your reasons for this view?**

Issue 18 - Flood Risk and Hydrology

3.130 The Minerals Development Framework should seek to encourage restoration schemes which will support the Environment Agency's Flood Risk Management Strategies and River Catchment Management Plans. In the future there may be more opportunities to restore quarries as flood attenuation and storage areas, in conjunction with the policy principles set out in the

3 Issues

Inert Waste and Agriculture sections to reduce infilling with inert waste in line with the Waste Hierarchy. Such restoration schemes may also indirectly have biodiversity and agricultural benefits. The Core Strategy should also seek to encourage mineral development where the primary purpose should be the creation of flood management schemes, providing they have no adverse impacts on local communities.

Warwickshire Hydrology

3.131 The main rivers of Warwickshire are part of the extensive drainage systems of the Trent and Severn river catchments with a small section of South Warwickshire flowing into the Cherwell, a tributary of the Thames. Flowing out to the north of the county and into the Trent Catchment are the rivers Cole, Anker, Blyth and Tame. The River Avon running through central and southern Warwickshire is a major tributary of the River Severn. Rivers feeding the Warwickshire Avon include the Swift, Leam, Itchen and Dene with the River Sowe flowing out of the Coventry area.

Historical Flooding in Warwickshire

3.132 Some parts of Warwickshire are particularly susceptible to flooding events due to the county's topography and river drainage patterns. In recent years there have been a number of large scale flood events across the country which have all had an impact on Warwickshire. The three largest flood events in the county occurred in January 1985, April 1998 and most recently in July 2007. There were flooding incidents recorded across the whole county at this time but most severely and regularly affected are reaches of the Leam, Avon and their tributaries. Stratford and Leamington are the main urban areas to be most affected by large scale flooding but many more rural towns and villages have also suffered. It is also clear that 'pulses' of flood water which pass through Warwickshire can add to the flooding problems downstream in both the Trent and Severn Catchments.

Planning Policy Statement 25 - Flood Risk Management

3.133 Planning Policy Statement 25 (PPS25) sets out Government policy on development and flood risk. Its aims are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest risk. Where new development is proved to be essential in such areas, the drive will be to make it as safe as possible without increasing flood risk elsewhere and where possible, reducing flood risk overall. PPS25 demonstrates that the government is committed to tackling climate change and accepts that flooding, extreme weather events and periods of drought may increase over the coming decades unless the issue is tackled now.

3.134 PPS25 states that a risk based sequential test should be applied at all stages of planning with the aim of steering new development away from areas of high risk of flooding. The sequential test will also identify types of development which are more vulnerable to flooding events in order to steer them away from areas at real risk of flooding.

Zone 1: Low Probability - **This zone comprises land assessed as having a less than 1 in 1000 annual probability of river flooding in any year.**

Zone 2: Medium Probability **- This zone comprises land assessed as having between a 1 in 100 and a 1 in 1000 probability of river flooding in any one year.**

Zone 3: High Probability **- This Zone comprises land assessed as having a 1 in 100 or greater probability of river flooding or comprises of areas of land where water has to flow or be stored in times of flood.**

3.135 Zones 2 and 3 are shown on the Environment Agency Flood Maps with Flood Zone 1 being all the land outside of these specified zones.

3.136 According to PPS 25, mineral development, excluding that related to sand and gravel, is a “Less Vulnerable” form of development and is therefore deemed appropriate in zones 1, 2 and 3 (Functional Floodplain). Sand and gravel extraction is a “water compatible” development and as such there is no restriction in site allocations with relation to flood risk. Other mineral developments, because they are classified as “Less Vulnerable”, would also be acceptable in flood Zones 2 and 3 providing they are supported by a Site Specific Flood Risk Assessment which shows that they would not be likely to flood or cause flooding in other parts of the river catchment.

3.137 The Good Practice Guidance to PPS25 (June 2008) states that Mineral Planning authorities need to take account of flood risk when allocating land for development. In the development of polices minerals authorities should not only reference their own SFRAs but also have full regard to flooding issues identified in RSS and their supporting Regional Flood Risk Appraisals.

Warwickshire County Council Strategic Flood Risk Assessment (SFRA)

3.138 In accordance with the requirements of PPS25 and the associated Good Practice Guide, a Level 1 SFRA has been carried out to inform the Minerals Core Strategy of all matters relating to flood risk and management in Warwickshire. The purpose of the SFRA is to assess and map all forms of flood risk from groundwater, surface water (including run off) and river sources taking into account future climate change predictions contained in PPS25. The SFRA document supports the Minerals Core Strategy and the allocation of sites in order to aid the long-term management of flood risk in the county. As minerals can only be worked where they are found and have also been classified as "Less Vulnerable" to flooding (with the exception of sand and gravel, which is "Water Compatible") the SFRA will have a major influence on all approved restoration schemes.

Surface Water Drainage and Sustainable Drainage Systems (SuDs)

3.139 The term Sustainable Drainage Systems (SuDs) has evolved to cover all approaches to surface water drainage management systems for all new developments. SuDs ensure that the impact of surface waters from new developments is controlled and does not result in flooding of the site or surrounding area. SuDs may also offer opportunities for public amenity spaces, water quality control and biodiversity benefits. PPS25 states that Planning Authorities should be encouraging all developers to utilise SuDs wherever practicable in the design of developments by appropriate planning conditions or agreements if necessary.

3 Issues

3.140 As a result of the consultation and new information coming from the Environment Agency and other stakeholders, it has been decided to amend the original policy principle on Flood Risk. The new policy principle will now require all new developments to operate Sustainable Drainage Schemes on site to manage and control flood risk and the possible effects of climate change.

Policy Principle 18a

Flood Risk Management for Mineral Developments

In line with Planning Policy Statement 25: "Development and Flood Risk" all proposals will be required to demonstrate how flood risk to, and resulting from the development will be managed. The effect of climate change must also be taken into account and the use of Sustainable Drainage Systems (SuDS) will be required for all developments.

Question

31. **Do you agree with Policy Principle 18a (Flood Risk Management for Mineral Developments) and what are your reasons for this view?**

Integration of Flood Risk Management and Mineral Extraction

3.141 A second policy principle is now proposed relating to Flood Management and mineral workings which aims to create a stronger relationship between the Environment Agency and the minerals industry in Warwickshire in order to help manage flood risk in this county and in the wider river catchments. There is evidence that large parts of Warwickshire are under an increasing risk from flooding and so opportunities for mineral extraction to actively reduce flood risk should be explored. It is also worth noting that efforts to reduce the risk of flooding in Warwickshire will have added benefits downstream in areas outside the county boundary.

3.142 The good practice guide to PPS25 reinforces this approach in that it states *"The Location of Mineral Safeguarding Areas and Site Allocations, in particular in relation to sand and gravel workings which are often located in functional flood plains, need to be identified. By taking this holistic approach it is possible to explore benefits such as restoring mineral workings located in flood risk areas to increase flood water storage which can reduce flood risk, enhance biodiversity and the natural environment. "*

3.143 The opportunities for increased flood storage at sand and gravel workings located in the river floodplains may be limited as excavations in areas already close to the water table may not significantly increase flood capacity although this can be assessed on a site by site basis. Mineral extraction in the upper reaches of the main rivers in Warwickshire may offer opportunities to create flood attenuation areas and actively hold rainfall run off, delaying flood waters reaching the main rivers. This may be feasible with mineral sites around Dunchurch and Rugby which fall in the Avon catchment.

3.144 Applications for the extraction of minerals for the creation of flood alleviation and attenuation schemes will be encouraged but their potential benefits will have to outweigh their environmental impacts. Such schemes will be required to have the full support of the Environment Agency and be supportive of the requirements of the relevant River Flood Management Plan.

3.145 In creating suitable schemes for flood risk management opportunities for the improvement of water quality, biodiversity enhancement and other benefits should be fully explored and incorporated where appropriate.

Environment Agency Strategic Water Policy documents

River Basin Management Plans

3.146 River Basin Management will set out in general terms how the water environment will be managed. They will also provide a framework of how detailed decisions will be made. Each river basin will have a plan which will include information on its characteristics and a summary of the significant pressures and impacts upon water bodies including information on biodiversity, water quality, amenity, flooding and fisheries. Once adopted each River Basin Management Plan will:

- establish a strategic plan for the long term management of the River Basin;
- set out objectives for water bodies and in broad terms what measures are planned to meet these objectives
- deliver the requirements of the European Water Framework Directive.

3.147 Warwickshire falls within the River Basin Districts of the Severn, Humber (Trent) and the Thames.

River Catchment Management Plans (CFMPs)

3.148 A Catchment Flood Management Plan (CFMP) is a high-level strategic planning tool through which the Environment Agency will seek to work with other key decision-makers within a river catchment to identify and agree policies for sustainable flood risk management.

3.149 The aims of Catchment Flood Management Planning can be defined as:

- To reduce the risk of flooding and harm to people, the natural, historic and built environment caused by floods
- To maximise opportunities to work with natural processes and to deliver multiple benefits from flood risk management, and to make an effective contribution to sustainable development
- To support the implementation of EU directives, the delivery of Government and other stakeholder policies and targets, and the Agency's Environmental Vision
- To promote sustainable flood risk management;
- To inform and support planning policies, statutory land use plans and implementation of the Water Framework Directive.

3 Issues

3.150 CFMP policies will be defined by the extent, nature and scale of current and future flood risk across each particular river catchment, with an overarching aim to reduce flood risk within the catchment by delivering the specific CFMP objectives. The policies are concerned with setting the right strategic approach to managing the overall flood risks within the catchment. Three CFMPs cover Warwickshire; the River Trent, River Severn and River Thames.

Policy Principle 18b

Water Quality and Flood Risk Management

All proposals involving mineral extraction should be required to incorporate appropriate measures, through consultation with the Environment Agency, which could offer benefits to the overall flood risk management of the river catchment in which they are sited.

Question

32. **Do you agree with Policy Principle 18b (Water Quality and Flood Risk Management) and what are your reasons for this view?**

Issue 19 - Renewable Energy and Carbon Reduction Measures

3.151 Warwickshire as an authority is signed up to a Local Area Agreement (LAA) which commits the County and all District and Borough Councils in Warwickshire to the following strategy:

> *"To reduce greenhouse gas emissions in Warwickshire to at least the level set out by Government policy. These levels are a 15%-18% reduction by 2010 and a 60% reduction by 2050 (compared to 1990 levels). We will achieve this whilst maintaining and improving the quality of life of Warwickshire residents through the implementation of a policy of sustainable development."* This LAA agreement was adopted in July 2008 and replaces the previous requirement for new developments to provide 15% of their energy requirements from renewable energy sources.

3.152 Planning Policy Statement 22: Renewable Energy, states that *"Local Planning Authorities may include policies in local development documents that require a percentage of the energy to be used in new residential, commercial or industrial developments to come from on-site renewable energy developments".* This "Merton" style approach to renewable energy is one way in which the Minerals Development Framework Core Strategy could approach the issue of renewable energy in its policies. A Merton style approach is also advocated in the supplement to Planning Policy Statement 1: Planning and Climate Change, which states that planning authorities should *"set out a target percentage of the energy to be used in new development to come from decentralised and renewable or low carbon energy sources where it is viable".*

3.153 By applying a Merton type policy to minerals developments it may be possible to help achieve the overall carbon reduction targets stated in the current LAA. The Minerals Core Strategy would however recognise that allowances could be made to minerals developments; due to their nature and operational characteristics, on site production of energy may not be easily accommodated. Carbon reduction measures may be achieved in other ways: the most obvious one would be to ensure that the proximity principle applied when allocating sites thus reducing distances minerals need to be transported. Encouragement through policies to enable recycling facilities within quarry areas is another method of carbon reduction. In addition carbon sinks could be encouraged as part of restoration proposals.

Policy Principle 19

Renewable energy and carbon reduction measures

Operators should be required to demonstrate how proposed minerals operations would enable a proportion of renewable energy to be produced on site and /or how low carbon technologies could enable carbon reduction measures. Ways in which carbon reduction could be achieved would be by demonstrating some or all of the following:

a. Applying the Proximity Principle in terms of location of the operation to markets to reduce transport distances

b. Use of renewable energy technologies to power some of the quarry operation

c. Restoration schemes which could enable the production of biomass.

d. Any other carbon reduction methods

Question

33. **Do you agree with the Policy Principle 19 (Renewable Energy and Carbon Reduction Measures) and what are your reasons for this view?**

3 Issues

Question

34. **Are there other ways minerals operations can contribute to the production of renewable energy or carbon reduction measures?**

OTHER ISSUES

Monitoring and Enforcement

3.154 As the Minerals Planning Authority, Warwickshire already has a responsibility to monitor its policies through the Annual Monitoring Report and regularly review the performance.

3.155 The monitoring and enforcement of planning permissions and conditions are a statutory requirement of the planning process and already undertaken by the county council. Therefore we felt that there was no need for the core strategy to address these issues with the inclusion of any specific policies other than providing a policy to ensure that the Council's statutory enforcement and monitoring statutory duties are fulfilled.

Liaison Meetings

3.156 There has traditionally been a good relationship between operators and communities within Warwickshire and liaison meetings have always provided a good forum to discuss issues either on a regular basis or on an ad hoc basis when specific issues had arisen. The conclusions to be drawn were that liaison meetings should be encouraged and should be arranged by the operator; however it would be left to the individual community to decide whether they wished to regularise these or to arrange ones for specific issues. From the previous consultation the concept of a Minerals Forum to run after the MDF to discuss broader issues such as restoration, was considered a good idea.

3.157 We feel that we have covered all the issues raised in previous consultations and summarised the outcomes in the revised policy principles. We have also discussed some newer issues in more detail i.e. issues 16-19. If you feel that any issue has not been covered in enough detail or the conclusions are wrong then please let us know. In addition, if there are any further issues that you feel need to be considered, this is another chance to have your say.

Question

35. **Are the key issues as set out in the Revised Spatial Options paper still appropriate?**

Question

36. **Are there any new issues not covered here that should be considered?**

4 Potential Minerals Sites for Consideration

4.1 The following section contains sites which have been put forward by the Minerals Industry and landowners for consideration. A request was made in August 2008 for any sites which people would like to be considered to be submitted by 31st October 2008. We have included all of the sites defined as 'Areas of Search' or 'Preferred Areas' in the current adopted Minerals Plan. Some of the new sites are old Mineral Plan sites which have not been implemented and which have been submitted for inclusion in the new plan. Comments on individual sites can be made at the end of the section on the Submitted Sites Comment Form on page 165. Comments on the former Minerals Plan sites can be made on the Minerals Local Plan Sites Comment Form on page 184.

4.2 All of the sites will be assessed after the consultation comments are returned in March 2009 and the sites chosen will be taken forward to the Preferred Options stage in November 2009. The new development plan system requires that any sites put forward should be deliverable. Therefore we will require evidence of the mineral deposits which exist, through the production of bore hole results to demonstrate that the reserves quoted in this consultation are correct. In cases where adequate information is not provided, the site may not be taken forward to the Preferred Options consultation.

SITE NUMBER	NAME	MINERAL
1	Wolston Fields	Sand and Gravel
2	Lower Farm, Bodymoor Heath	Sand and Gravel
3	Shawell Quarry extension, Gibbet Lane Lutterworth	Sand and Gravel
4	Alveston Pastures	Sand and Gravel
5	Cottage Farm, Wolvey	Sand and Gravel
6	Griffins Farm/ Spiers Farm – Southam Quarry	Clay for Cement
7	Land at Berry Coppice, Dunnington	Sand and Gravel
8	North of Broom Lane – Marsh Farm Quarry	Sand and Gravel
9	East of A46 Broom – Marsh Farm Quarry	Sand and Gravel
10	Land at Millers Bank – Marsh Farm Quarry	Sand and Gravel
11	Meikle Land	Sand and Gravel
12	Gethin Land	Sand and Gravel
13	Broomhill Farm, Straight Mile,	Sand and Gravel
14	Ling Hall Quarry extension- Lawford Heath	Sand and Gravel
15	Brinklow Quarry extension, Coventry Road	Sand and Gravel
16	Manor Farm	Sand and Gravel
17	Brinkow 2	Sand and Gravel
18	North of Bourton on Dunsmore	Sand and Gravel
19	Church Farm	Sand and Gravel

4 Potential Minerals Sites for Consideration

SITE NUMBER	NAME	MINERAL
20	South of Baginton	Sand and Gravel
21	Hams Lane, Lea Marston	Sand and Gravel
22	Wasperton	Sand and Gravel
23	Atherstone (on Stour) Airfield	Sand and Gravel
24	Kingsbury Brickworks, Rush Lane, Dosthill.	Brick Clay
25	Anker West, Shuttington	Coal
26	Griffins Farm/ Spiers Farm	Clay for Cement
27	West of Dry Hill Quarry, Hornton	Building Stone

Potential Minerals Sites for Consideration

Fig 4.1 Submitted Potential Strategic Sites

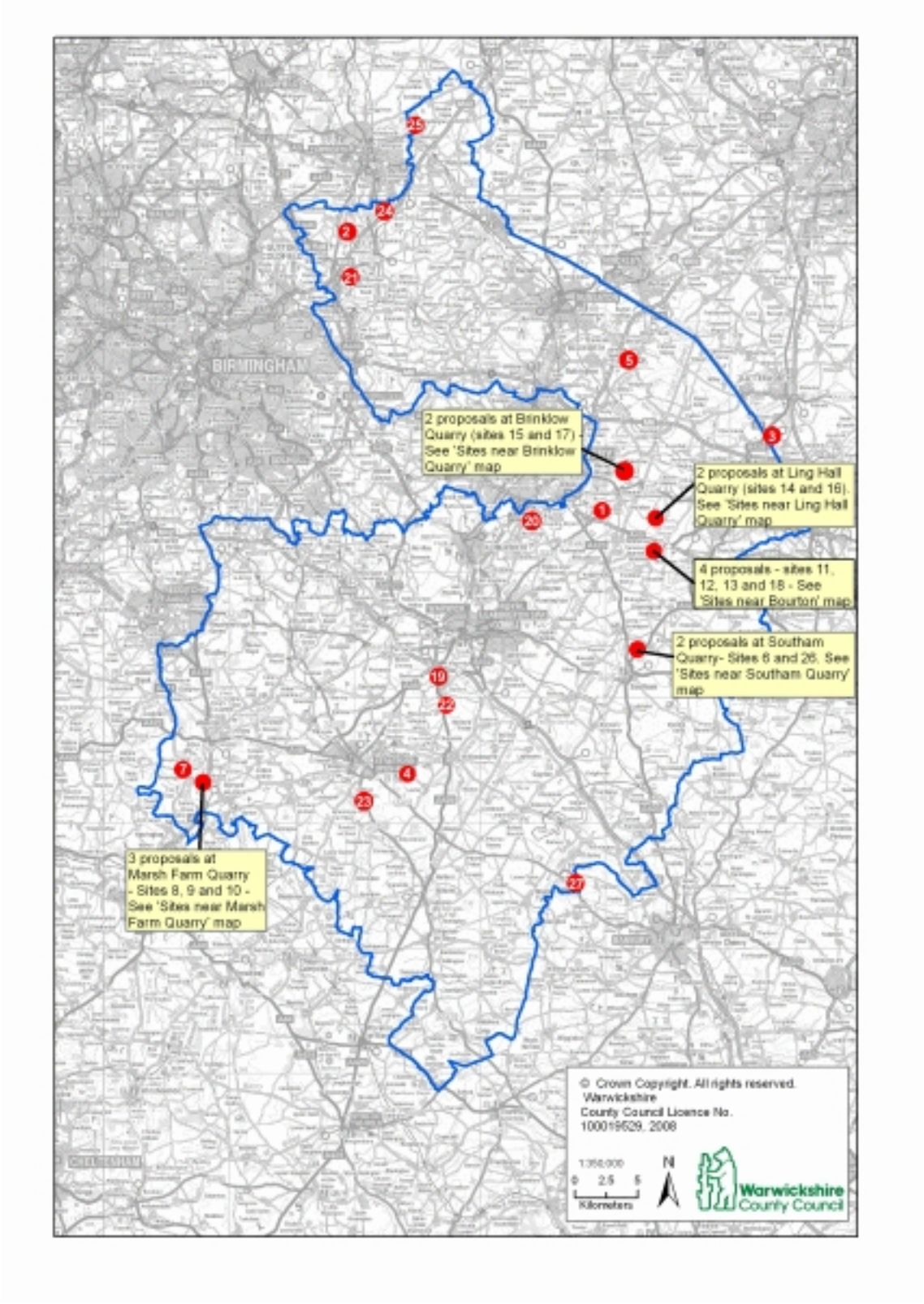


Figure 4.1 Submitted potential strategic sites in

N.B - This plan does not include the Minerals Local Plan sites

4 Potential Minerals Sites for Consideration

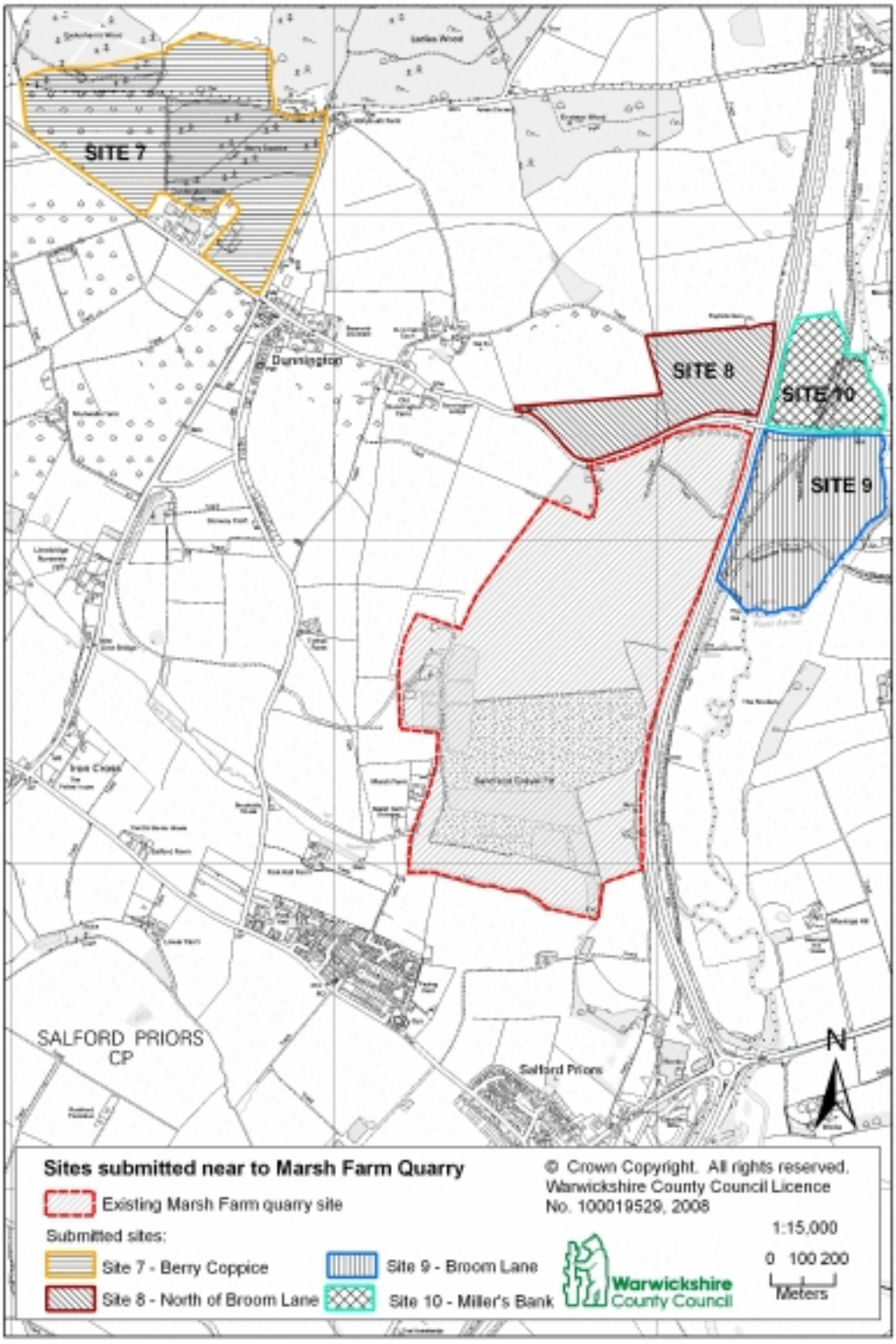


Figure 4.2 Submitted sites near Marsh Farm Quarry

Potential Minerals Sites for Consideration

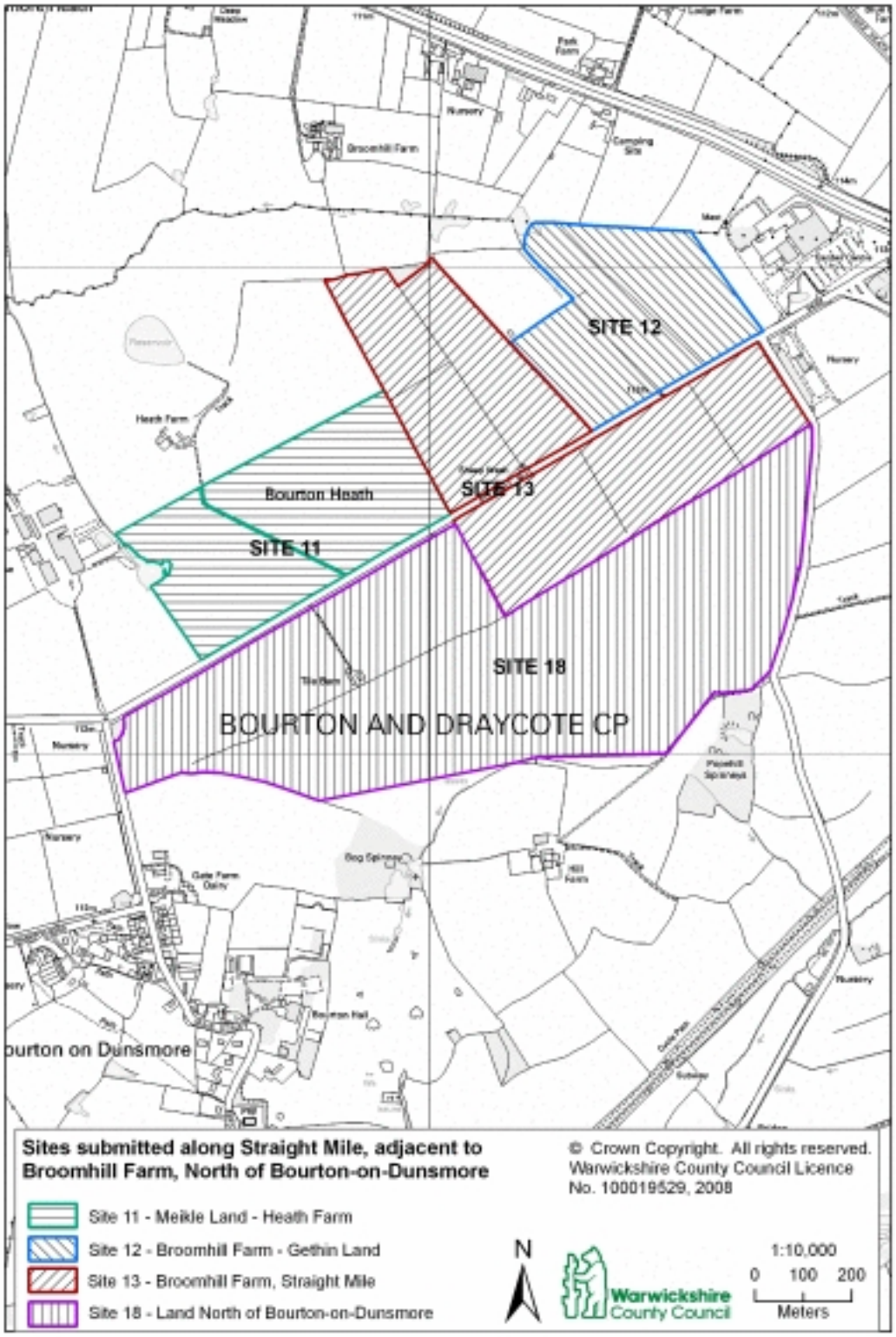


Figure 4.3 Submitted sites near Bourton-on-Dunsmore

4 Potential Minerals Sites for Consideration

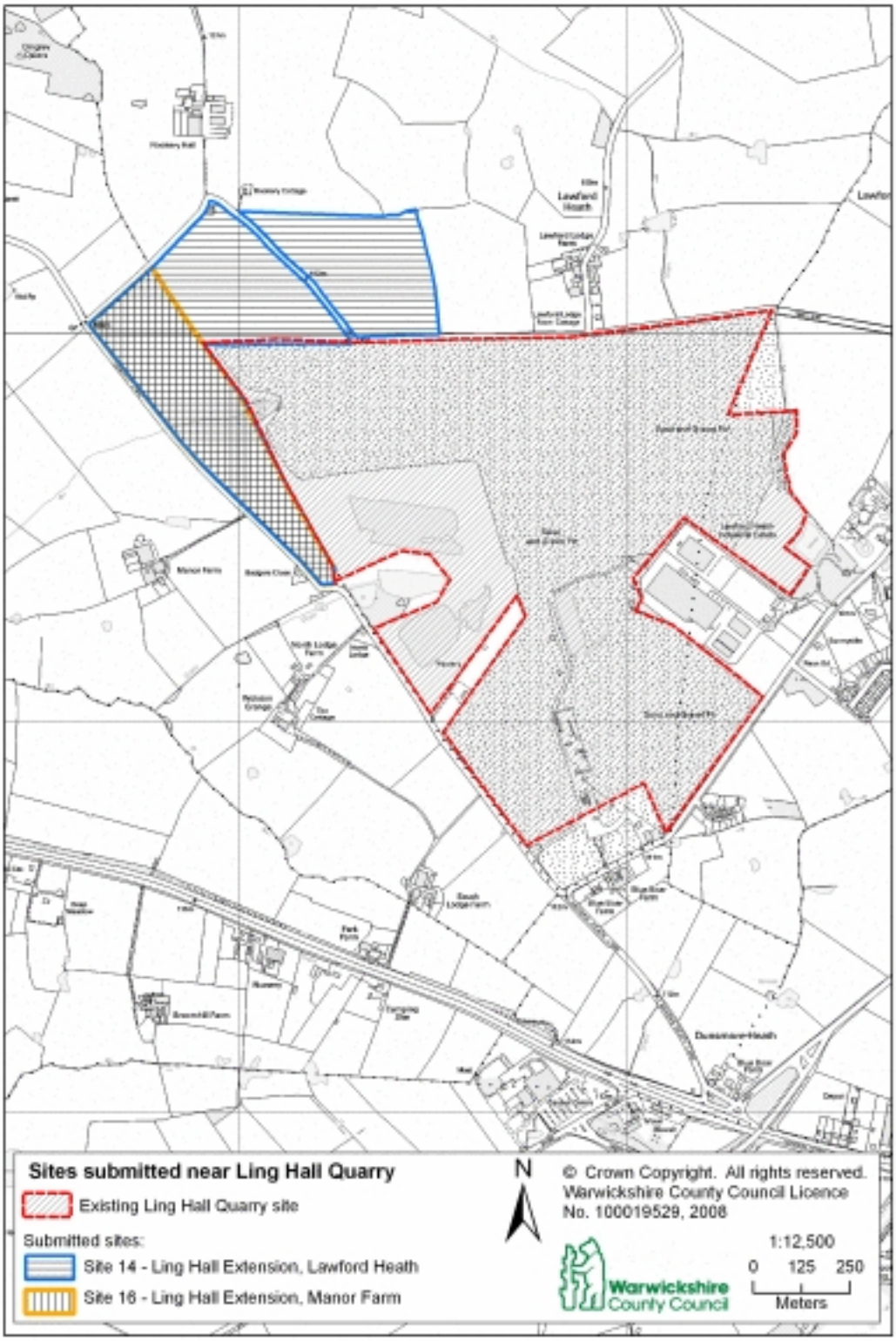


Figure 4.4 Submitted sites near Ling Hall Quarry

Potential Minerals Sites for Consideration

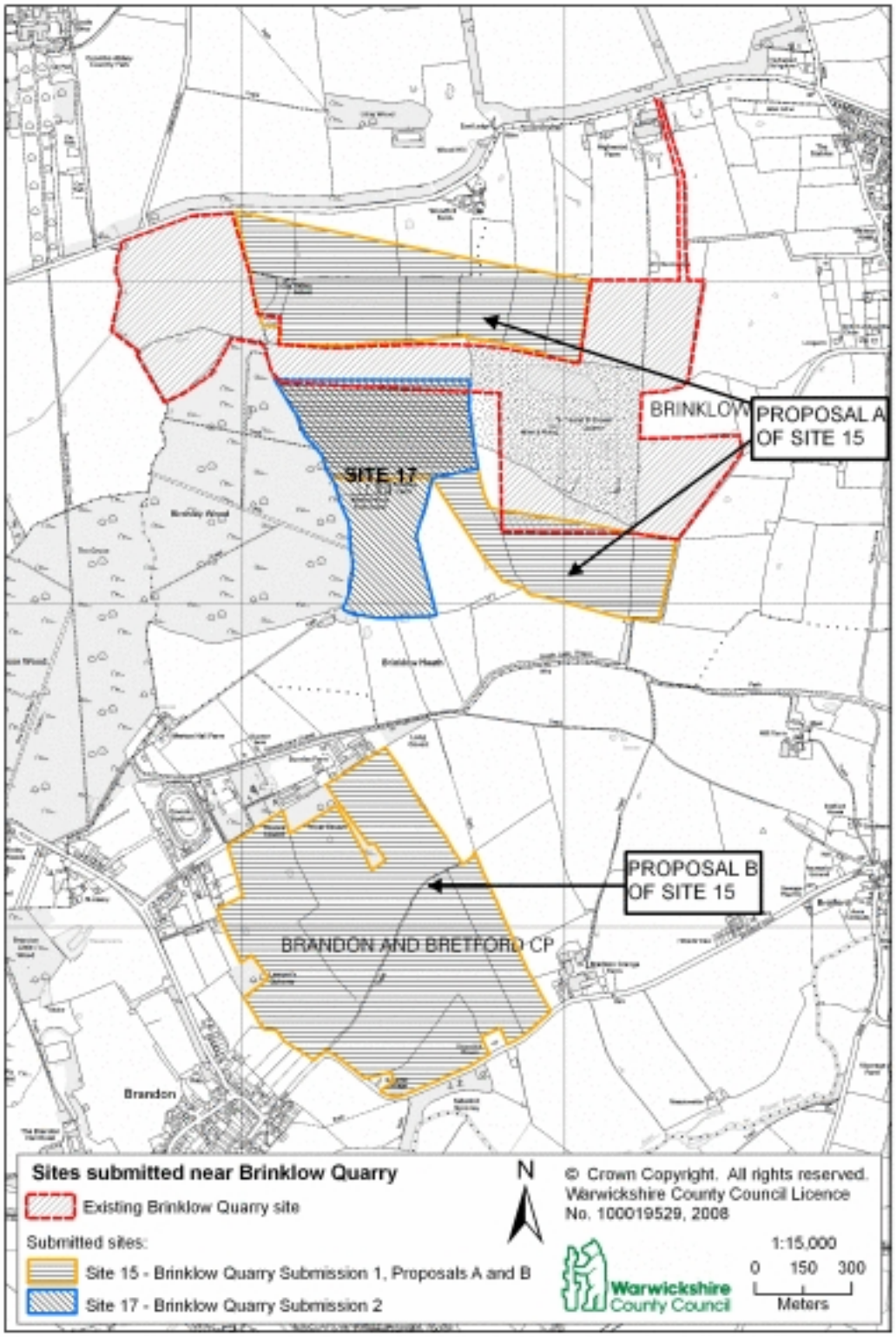


Figure 4.5 Submiited sites near Brinklow Quarry

4 Potential Minerals Sites for Consideration

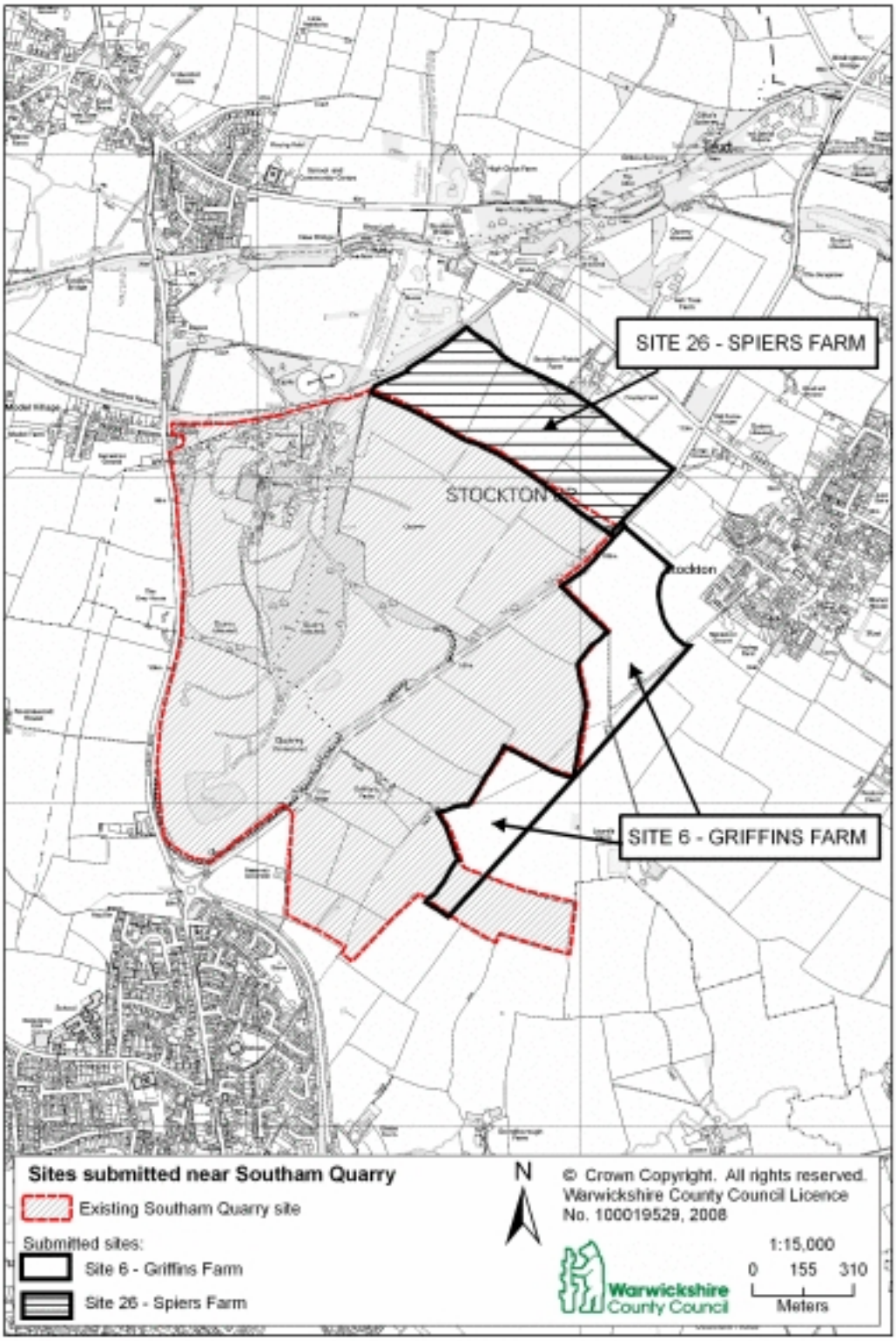


Figure 4.6 Submitted sites near Southam Quarry

Potential Minerals Sites for Consideration

Site 1 - Wolston Fields

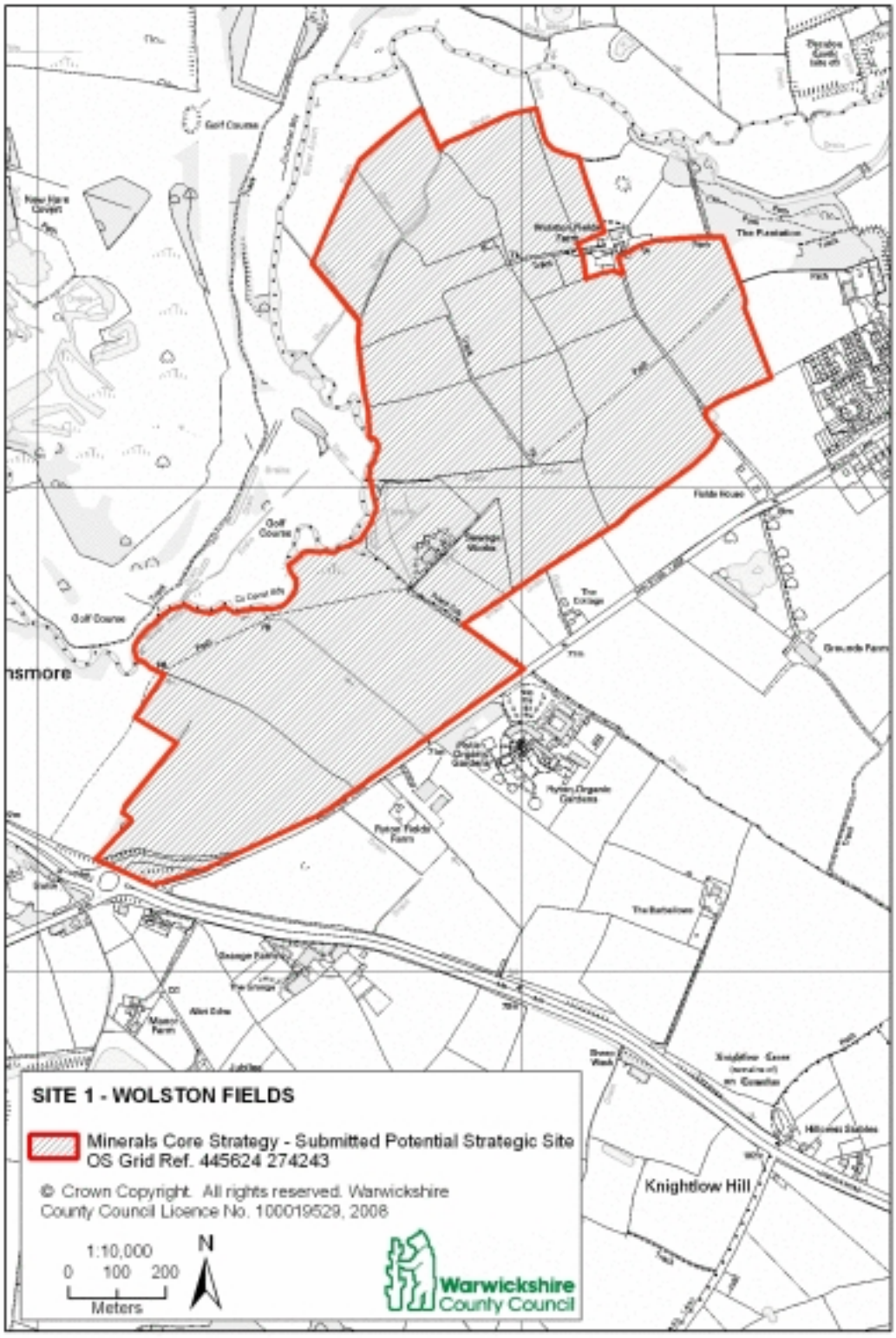
Site number	1
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Wolston Lane, Wolston
Grid Reference	SP 398 748
Parish	Ryton on Dunsmore and Wolston cum Brandon
Area (hectares)	86 hectares (or thereabouts)
Developer	Not known
Landowner	
Mode of Transport for Mineral	Road
Extension to existing works?*[1]	Greenfield Site
Site Plan Included	
Location of Site Access indicated	As referred to in submitted representations
Route to Preferred Lorry Network*[2]	A45 (T) via Wolston Lane
Settlements and Constraints*[3]	Wolston and Ryton on Dunsmore
Flood Zone Map	As referred to in submitted representations
Location of processing plant	Within proposed working area
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None
Archaeological Features and historic buildings*[5]	As referred to in submitted representations
Local ecological and geological features*[6]	As referred to in submitted representations
Operational Details	
Geological Formation and details	River Terrace
End Uses of Mineral	Construction aggregate
Estimated Resource (tonnes)	Up to 1.4 million tonnes
Overburden Thickness and Details	
Estimated Annual Output (tonnes)	200,000 tonnes per annum
Estimated Duration of Operations	7 years
Estimated Daily Vehicle Movements	80 (40 in, 40 out)
Destination of mineral, market or further processing facility.	
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes
Estimated Impact on local Ecology and Biodiversity	As referred to in submitted representations.
Groundwater Protection Zones	Not within any source protection zone.
Estimated Impact on overall Hydrology of the area.	Low to no risk.
Restoration Options	

4

Potential Minerals Sites for Consideration

Site number	1
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Mixed “wet” and “dry” uses.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	In part
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contributuin to the Warwickshire Local Biodiveristy Action Plan (LBAPs)?	Yes
Can the site offer opportunities for schemes for flood risk management?	Yes

Potential Minerals Sites for Consideration



Map 4.1 Site 1 - Wolston Fields

4

Potential Minerals Sites for Consideration

Site 2 - Lower Farm, Bodymoor Heath

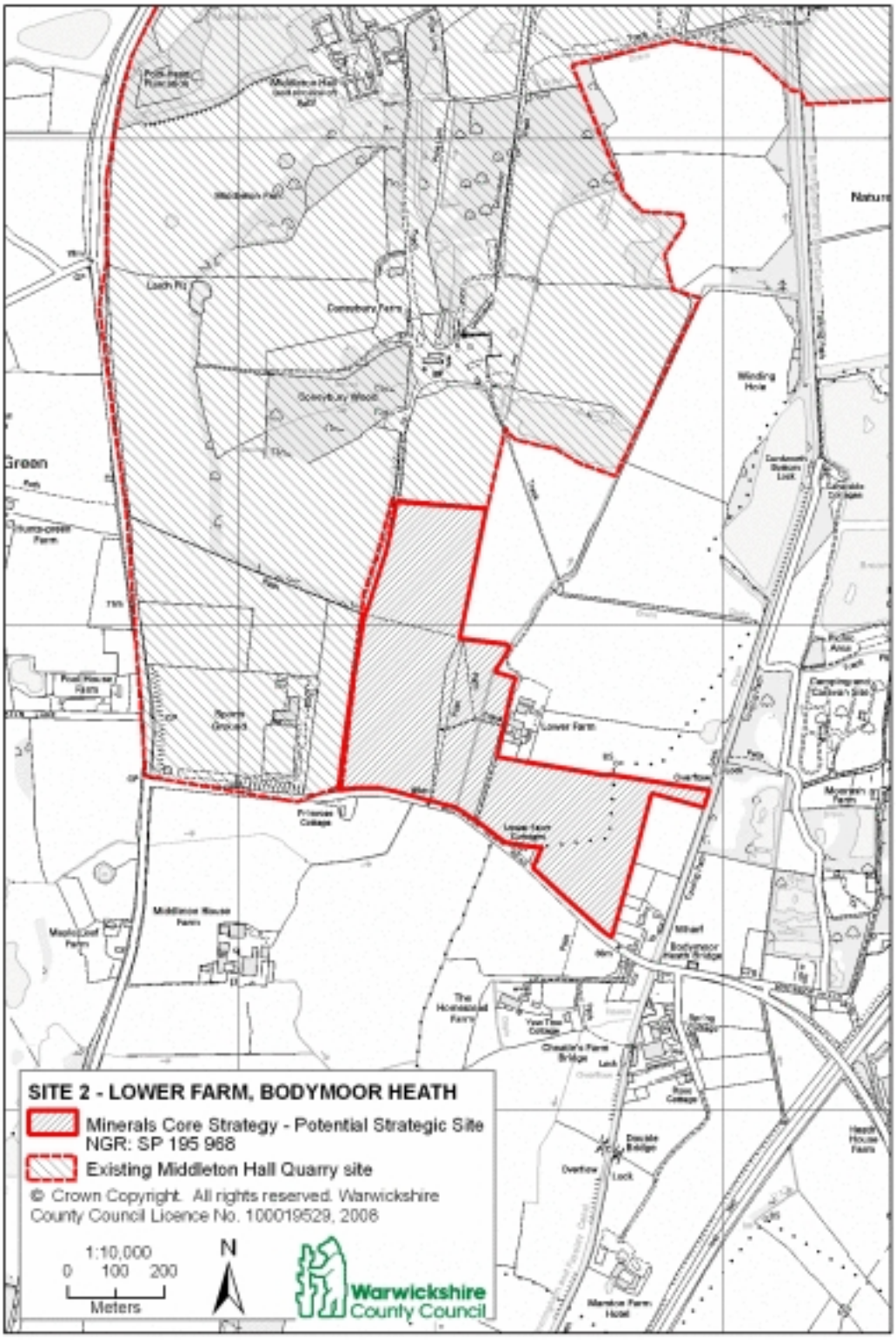
Site number	2
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand & Gravel
Address	Lower Farm, Bodymoor Heath
Grid Reference	SP 195 968
Parish	Kingsbury/Middleton
Area (hectares)	20.15ha (4.30ha has mineral planning consent)
Developer	Hanson
Landowner	Mr A W Lockhart
Mode of Transport for Mineral	Dump truck (internal land roads)
Extension to existing works?*[1(i)]	Extension to Middleton Hall Quarry
Site Plan Included	
Location of Site Access indicated	Enclosed 1: 10 000 05 plan
Route to Preferred Lorry Network*[2]	Existing quarry access
Settlements and Constraints*[3]	Bodymoor Heath
Flood Zone Map	Outside R.Tame flood zone
Location of processing plant	Existing Middleton Hall
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None
Archaeological Features and historic buildings*[5]	None
Local ecological and geological features*[6]	Kingsbury Water Park. Middleton Hall RSPB Nature Reserve.
Operational Details	
Geological Formation and details	R.Tame Terrace deposits
End Uses of Mineral	Aggregate Concrete products etc
Estimated Resource (tonnes)	595,000 tonnes
Overburden Thickness and Details	67,000 m3
Estimated Annual Output (tonnes)	c 200,000 t pa
Estimated Duration of Operations	c 3 years
Estimated Daily Vehicle Movements	c 30/35 each way
Destination of mineral, market or further processing facility.	West Midlands Conurbation
Will extraction occur around or below the water table?	Below is part of the site
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 3b/3c
Estimated Impact on local Ecology and Biodiversity	None-existing agricultural land
Groundwater Protection Zones	N/A

i For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	2
Estimated Impact on overall Hydrology of the area.	Creation of lakes/wetland areas
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Ecological – lakes/wetland
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	N/A
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes. Possible to **** RSPB Middleton Hall reserve and Kingsbury Water Park.
Can the site offer opportunities for schemes for flood risk management?	
	Possibly. Outside R. Tame floodplain.

4 Potential Minerals Sites for Consideration



Map 4.2 Site 2 - Lower Farm, Bodymoor Heath

Potential Minerals Sites for Consideration

Site 3 - Shawell Quarry Extension

Site number	3
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Shawell Quarry, Gibbet Lane, Lutterworth, LE17 6AA
Grid Reference	SP531802
Parish	Churchover Parish Council
Area (hectares)	2.96 hectares
Developer	Lafarge Aggregates Ltd
Landowner	Mr and Mrs Grindal
Mode of Transport for Mineral	HGV – Road
Extension to existing works?*[1(ii)]	Yes – within Leicestershire
Site Plan Included	
Location of Site Access indicated	As existing
Route to Preferred Lorry Network*[2]	As existing
Settlements and Constraints*[3]	Village of Shawell 1km to East. Isolated Properties to North and South.
Flood Zone Map	Outside Flood Zone Risk.
Location of processing plant	As existing.
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Cave's Inn Pits SSSI – 700m to South East.
Archaeological Features and historic buildings*[5]	Tripontium Roman Station (scheduled monument) Motte Castle and associated earthwork sw of All Saints Church – scheduled monument.
Local ecological and geological features*[6]	None known.
Operational Details	
Geological Formation and details	Dunsmore Gravel Formation
End Uses of Mineral	Concreting Sand and Gravel
Estimated Resource (tonnes)	100,000 tonnes
Overburden Thickness and Details	Approx 6m clay overburden
Estimated Annual Output (tonnes)	400,000 tonnes
Estimated Duration of Operations	12 to 24 months
Estimated Daily Vehicle Movements	Approx 100 loads per day
Destination of mineral, market or further processing facility.	Processed at Shawell quarry, Leicestershire
Will extraction occur around or below the water table?	Partly below water table
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No anticipated 3b
Estimated Impact on local Ecology and Biodiversity	None anticipated
Groundwater Protection Zones	Not within a GPZ

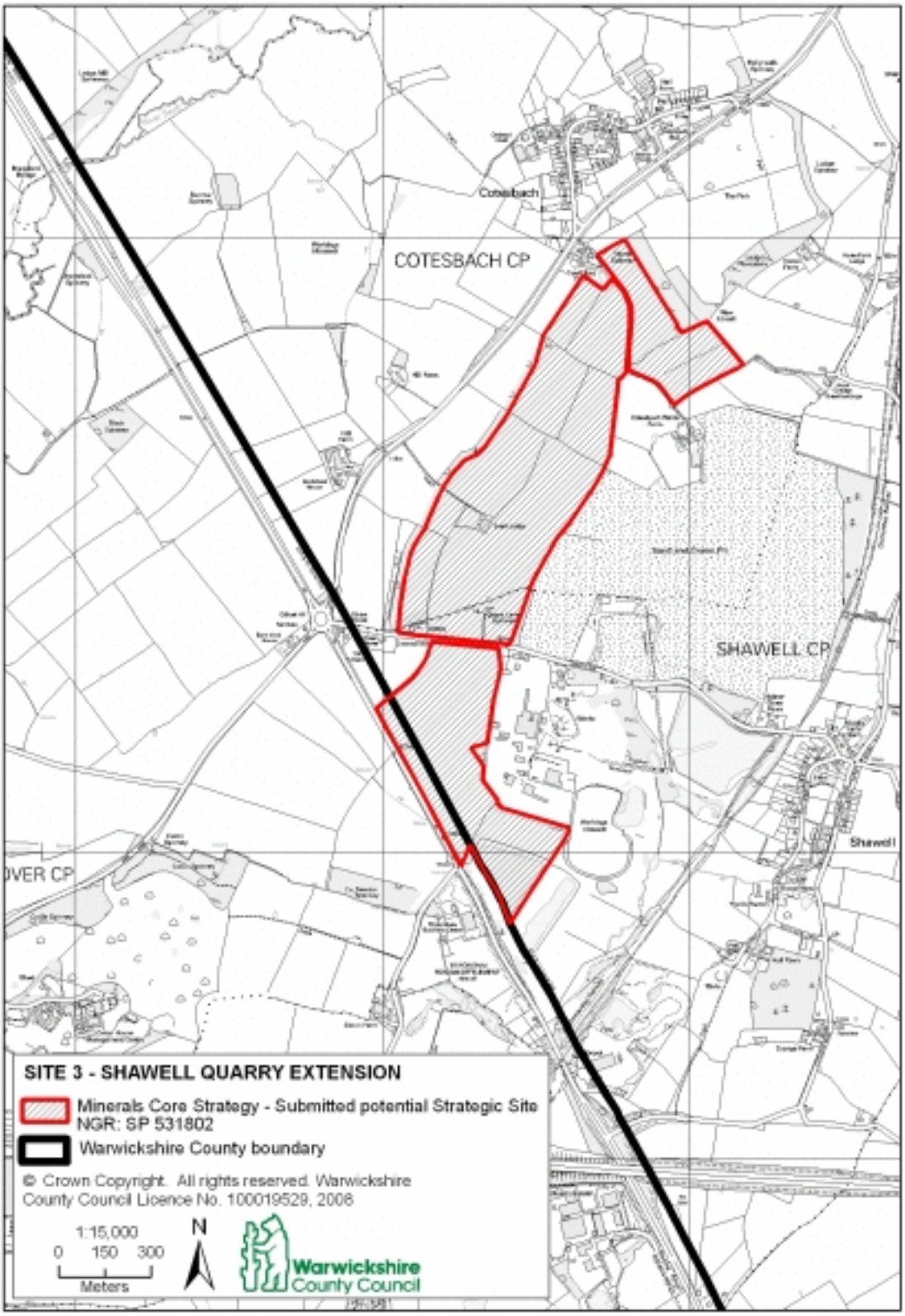
ii For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	3
Estimated Impact on overall Hydrology of the area.	Localised water draw down only
Restoration Options	
Please provided outline details of the restoration scheme including:	Agriculture
What are the proposed site after-uses?	Agriculture
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Restoration to original grade could be achieved, even at reduced/lower level
Will the site require the importation of inert and other waste streams?	Infill (inert/non hazardous) would potentially enhance restoration levels.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes, potential for some features (wetland and tree planting) to provide some biodiversity enhancement.
Can the site offer opportunities for schemes for flood risk management?	No

Potential Minerals Sites for Consideration

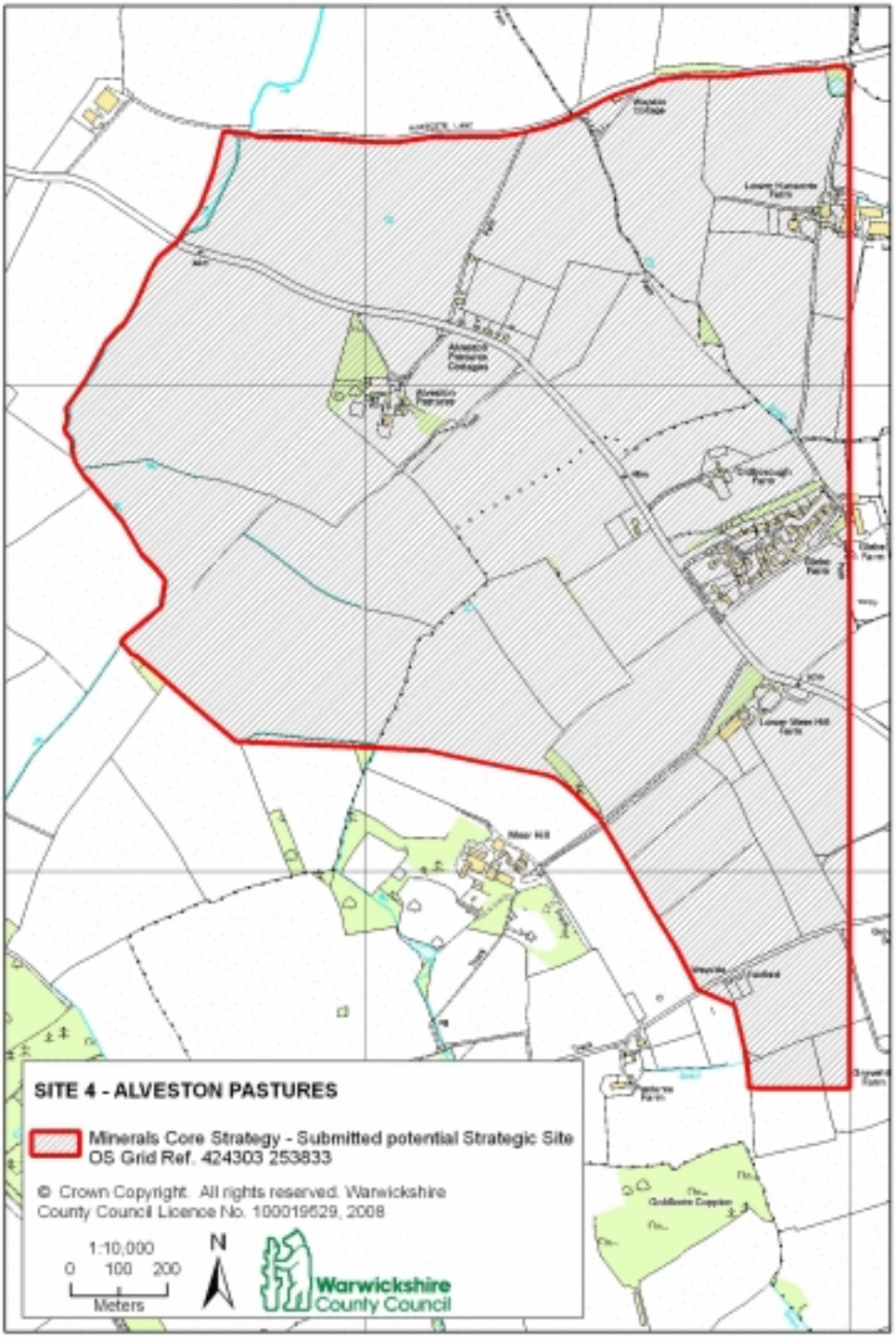


Map 4.3 Site 3 - Shawell Quarry Extension

4 Potential Minerals Sites for Consideration

Site 4 - Alveston Pastures

4.3 Site 4 – Alveston Pastures – proposed sand and gravel site. This is an existing Local Plan Area of Search. No completed pro-forma was submitted.



Map 4.4 Site 4 - Alveston Pastures

Potential Minerals Sites for Consideration

Site 5 - Cottage Farm, Wolvey

Site number	5
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand
Address	Cottage Farm, Wolvey, Hinckley, Leicestershire
Grid Reference	X: 442189 Y: 286650 (SP4286)
Parish	Wolvey
Area (hectares)	53.67 in total ownership
Developer	N/A
Landowner	Mr N Fletcher
Mode of Transport for Mineral	Road?
Extension to existing works?*[1(iii)]	No
Site Plan Included	
Location of Site Access indicated	Marked by arrows
Route to Preferred Lorry Network*[2]	-
Settlements and Constraints*[3]	-
Flood Zone Map	Included – not in flood risk area
Location of processing plant	N/A
Ancillary Developments required?	
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	N/A
Archaeological Features and historic buildings*[5]	N/A
Local ecological and geological features*[6]	N/A
Operational Details	
Geological Formation and details	-
End Uses of Mineral	-
Estimated Resource (tonnes)	Estimated in 1991 as 500,000 tonnes
Overburden Thickness and Details	-
Estimated Annual Output (tonnes)	-
Estimated Duration of Operations	-
Estimated Daily Vehicle Movements	-
Destination of mineral, market or further processing facility.	-
Will extraction occur around or below the water table?	-
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Land classed as grade 3 on provision for agricultural land classification maps.
Estimated Impact on local Ecology and Biodiversity	-
Groundwater Protection Zones	-

iii **For key, see Site 27, page 163)**

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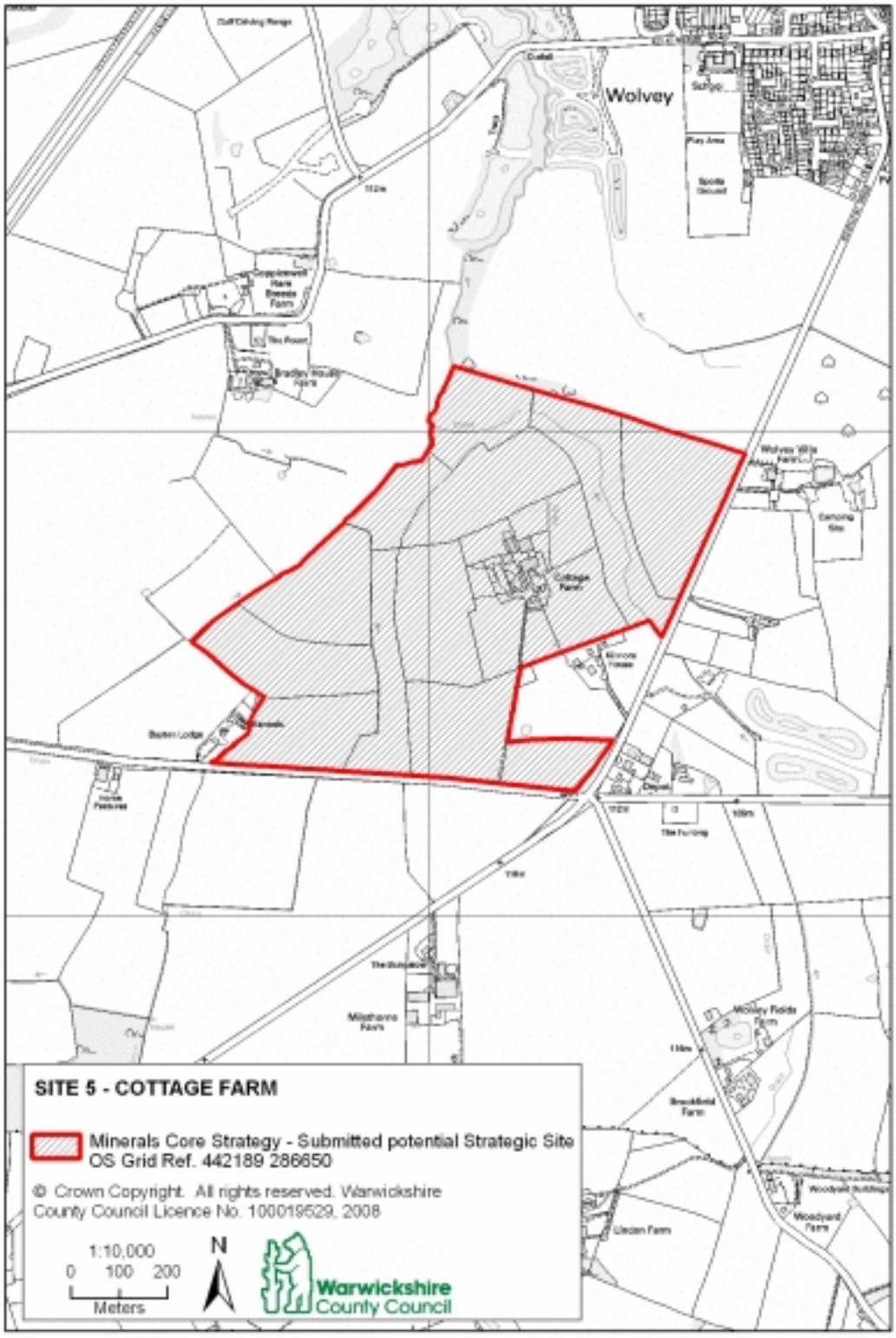
Potential Minerals Sites for Consideration

Site number	5
Estimated Impact on overall Hydrology of the area.	-
Restoration Options	
Please provided outline details of the restoration scheme including:	-
What are the proposed site after-uses?	-
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	-
Will the site require the importation of inert and other waste streams?	-
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	-
Can the site offer opportunities for schemes for flood risk management?	-

Potential Minerals Sites for Consideration



Map 4.5 Site 5 - Cottage Farm

4

Potential Minerals Sites for Consideration

Site 6 - Griffins Farm, Southam Quarry

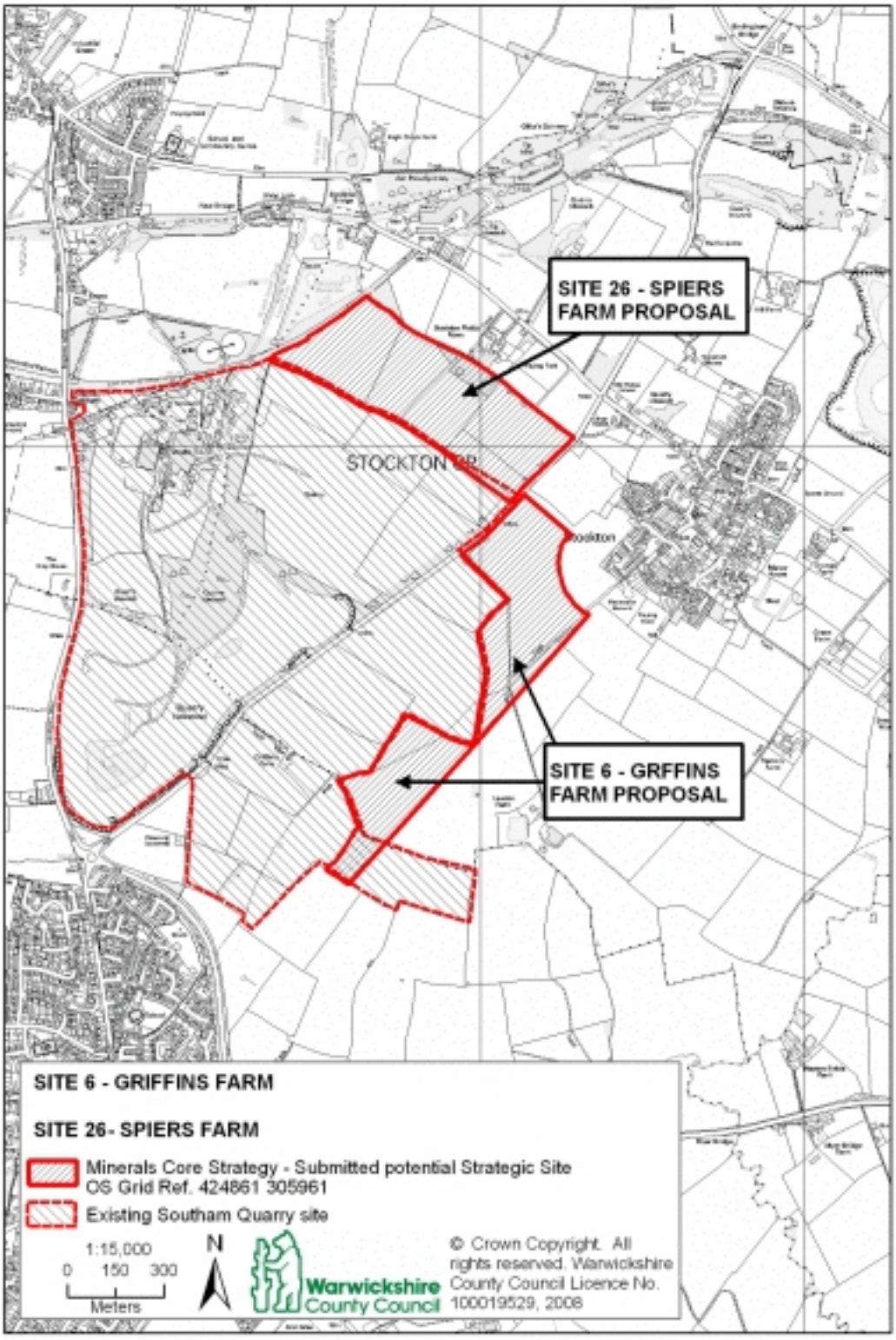
Site number	6
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Land N and E of Griffins Farm
Address	Southam
Grid Reference	427629 and 432635 (see plan)
Parish	Stockton/Southam
Area (hectares)	Approx 15
Developer	CEMEX UK Cement
Landowner	Wilkinson
Mode of Transport for Mineral	HGV/Road
Extension to existing works?*[1(iv)]	Yes – Southam Quarry
Site Plan Included	
Location of Site Access indicated	Southam works access
Route to Preferred Lorry Network*[2]	To A423 via above
Settlements and Constraints*[3]	Stockton
Flood Zone Map	N/A
Location of processing plant	Southam and Rugby
Ancillary Developments required?	No
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	RIGS at Southam
Archaeological Features and historic buildings*[5]	See Spiers Farm EA
Local ecological and geological features*[6]	
Operational Details	
Geological Formation and details	
End Uses of Mineral	Cement (Rugby)
Estimated Resource (tonnes)	Approx 3m tonnes (Gross)
Overburden Thickness and Details	Approx 1m
Estimated Annual Output (tonnes)	5/600000 tonnes
Estimated Duration of Operations	4/5 years
Estimated Daily Vehicle Movements	Same as Spiers Farm
Destination of mineral, market or further processing facility.	Rugby Cement/Midland Conurbations
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No
Estimated Impact on local Ecology and Biodiversity	Will improve these
Groundwater Protection Zones	Manageable/Spiers

iv **For key, see Site 27, page 163)**

Potential Minerals Sites for Consideration

Site number	6
Estimated Impact on overall Hydrology of the area.	Manageable/Spier
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Extension of Griffins Farm scheme
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Grade 3b can be restored in part
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes Yes
Can the site offer opportunities for schemes for flood risk management?	N/A

4 Potential Minerals Sites for Consideration



Map 4.6 Site 6 - Griffins Farm, Southam Quarry

Potential Minerals Sites for Consideration

Site 7 - Berry Coppice, Dunnington

Site number	7 (submission 1)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand & Gravel
Address	Land at Berry Coppice, Dunnington, adjacent to B4088
Grid Reference	SP065542 (Full coordinates : 406500;254250)
Parish	Salford Priors and Arrow
Area (hectares)	40.3 hectares
Developer	Cemex Materials UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	HGV
Extension to existing works?*[1(v)]	Site is viewed as replacement for existing Ragley (Marsh Farm Quarry)
Site Plan Included	**SP0752_CW_D_271008_A**
Location of Site Access indicated	Currently undetermined
Route to Preferred Lorry Network*[2]	As per existing Ragley Quarry
Settlements and Constraints*[3]	Small number of isolated residential properties at Dunnington Heath Farm, Weethley Gate and Evesham Lodge. Margins would have to be retained from all these properties, their exact extent would depend on the specifics of any proposed development.
Flood Zone Map	Not in flood zone.
Location of processing plant	To be determined.
Ancillary Developments required?	To be determined.
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Site lies partly with Historic Park and Garden associated with Ragley Hall. Berry Coppice is shown as replanted Ancient.
Archaeological Features and historic buildings*[5]	None known.
Local ecological and geological features*[6]	None known.
Operational Details	
Geological Formation and details	5th River Terrace sand & gravel processable to construction specifications.
End Uses of Mineral	Construction aggregates and ready mixed concrete.
Estimated Resource (tonnes)	Minimum of 2 million tonnes saleable sand and gravel.
Overburden Thickness and Details	Varying between 0.2 to 5.5 metres; about 550,000 m3.
Estimated Annual Output (tonnes)	200,000 tonnes.
Estimated Duration of Operations	10 years plus five years aftercare.
Estimated Daily Vehicle Movements	40 vehicles per day leaving the site.
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area.
Will extraction occur around or below the water table?	Water is present in the lower depths of material.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 3 and woodland.
Estimated Impact on local Ecology and Biodiversity	Scope for biodiversity and habitat gains as a result of quarry restoration scheme.
Groundwater Protection Zones	No

v For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	7 (submission 1)
Estimated Impact on overall Hydrology of the area.	Limited.
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Balanced mix of leisure amenity, farmland, woodland and agriculture.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Grade 3 agriculture restoration considered achievable in those parts of the site where agricultural would be proposed.
Will the site require the importation of inert and other waste streams?	Site would have some scope to accommodate inert waste in the same way that the existing Ragley Quarry does.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Quarrying presents an excellent opportunity to widen biodiversity interest and habitat creation as part of the restoration scheme. The company would be happy to work with statutory and non statutory bodies in this field, and the landowners, to arrive at a scheme that maintained agricultural production.
Can the site offer opportunities for schemes for flood risk management?	Not thought to be required.

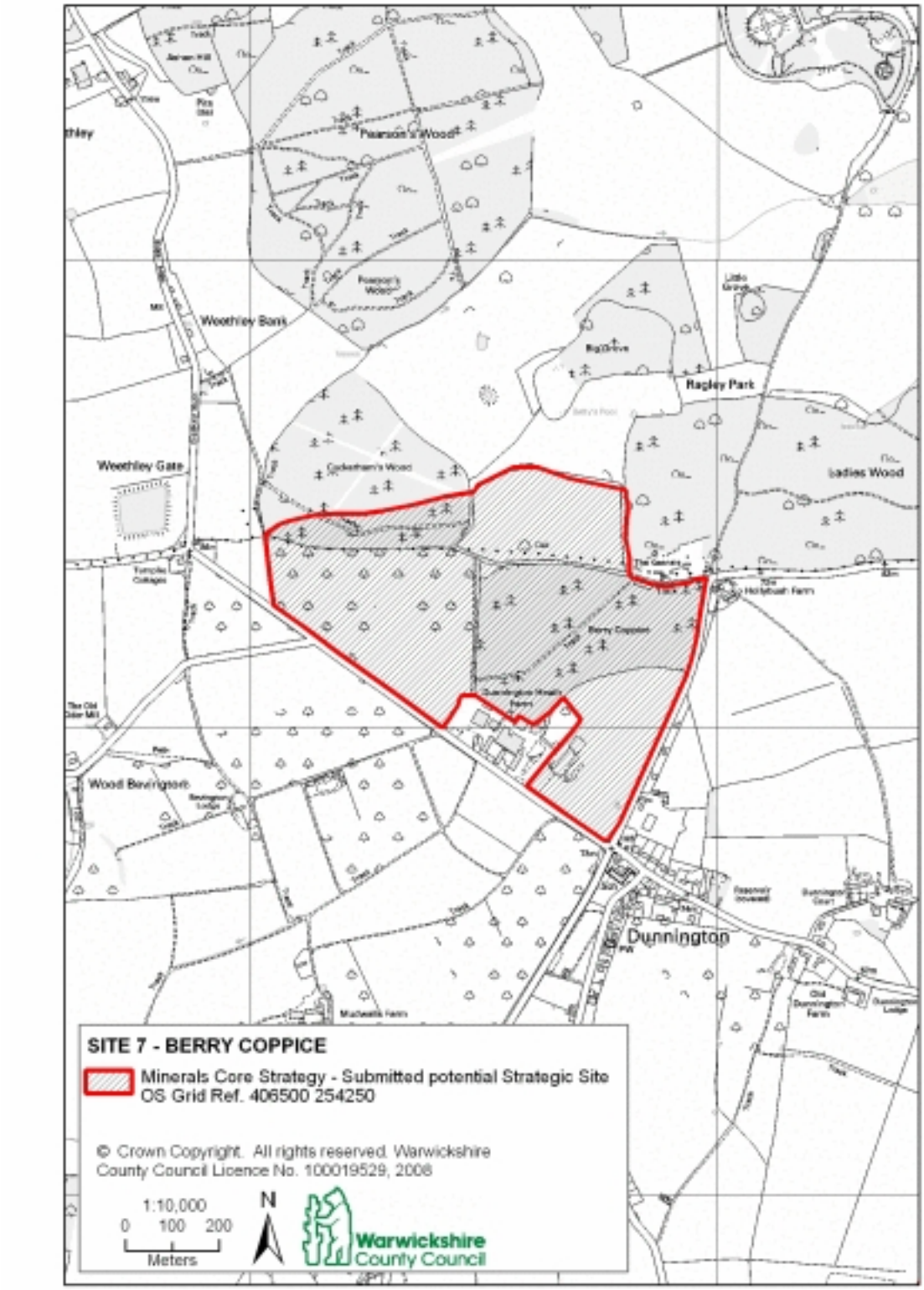
Site number	Site 7 (submission 2)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land at and around / Berry Coppice / Cockerhams Wood / Dunnington Heath
Grid Reference	SP065542 (Full coordinates: 406500; 254250)
Parish	Salford Priors and Arrow
Area (hectares)	Approximately 50 hectares
Developer	Cemex UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	Road Lorries
Extension to existing works?*1(vi)	No; although this potential will be examined in a development brief.
Site Plan Included	**61016/1/DH1**
Location of Site Access indicated	For indication only to proposed improved junction
Route to Preferred Lorry Network*2	Directly onto network at proposed new junction
Settlements and Constraints*3	Environmental protection to be provided to Dunnington Heath Farm shop and visitor centre; proposed new junction to safeguard Dunnington Village traffic.
Flood Zone Map	Not in flood zone
Location of processing plant	To be decided on environmental and traffic access criteria
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*4	Part touches Ragley park; part Ancient Woodland; in Special Landscape Area
Archaeological Features and historic buildings*5	None known
Local ecological and geological features*6	None known at present but designations to be examined
Operational Details	
Geological Formation and details	4th River Terrace sand and gravel processable to construction specifications.
End Uses of Mineral	Construction aggregates and materials

vi For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	Site 7 (submission 2)
Estimated Resource (tonnes)	Minimum of 2 million tonnes saleable sand and gravel
Overburden Thickness and Details	Varying between 0.2 to 5.5 metres; about 550,000m3
Estimated Annual Output (tonnes)	200,000
Estimated Duration of Operations	10 years plus five years aftercare
Estimated Daily Vehicle Movements	40 vehicles per day leaving the site
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area
Will extraction occur around or below the water table?	Water is present in the lower depths of material
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 3 and Woodland
Estimated Impact on local Ecology and Biodiversity	Change from present to increase biodiversity to ecological advantage
Groundwater Protection Zones	No
Estimated Impact on overall Hydrology of the area.	Temporary local interference only
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Balanced mix of leisure amenity, farmland, woodland and agriculture
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Where agriculture is proposed restoration to same grade will be achieved
Will the site require the importation of inert and other waste streams?	None envisaged, although capacity to absorb some will be available.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	None envisaged

4 Potential Minerals Sites for Consideration



Map 4.7 Site 7 - Berry Coppice

Potential Minerals Sites for Consideration

Site 8 - North of Broom Lane, Marsh Farm Quarry

Site number	8
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land north of Broom Lane
Grid Reference	SP080534 (Full coordinates: 408050; 253440)
Parish	Salford Priors
Area (hectares)	15.2 hectares
Developer	Cemex Materials UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	Dumper via existing Ragley (Marsh Farm) Quarry
Extension to existing works?*[1(vii)]	Yes; extension to Ragley Quarry
Site Plan Included	**SP0752_CAW_D_291008_A**
Location of Site Access indicated	As per existing Ragley Quarry
Route to Preferred Lorry Network*[2]	As per existing Ragley Quarry
Settlements and Constraints*[3]	Closest residential property is Dunnington Lodge, approximately 250 metres distance at closest point proximity to Broom village.
Flood Zone Map	Sites lies partially within the flood zone.
Location of processing plant	Ragley Quarry
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None known
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	2nd River Terrace sand and gravel processable to construction specifications.
End Uses of Mineral	Construction aggregates and ready mixed concrete.
Estimated Resource (tonnes)	Estimated 0.25 million tonnes saleable sand and gravel.
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000m3.
Estimated Annual Output (tonnes)	250,000 tonnes on a campaign working basis.
Estimated Duration of Operations	1 year plus five years aftercare.
Estimated Daily Vehicle Movements	As existing from Ragley Quarry.
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area.
Will extraction occur around or below the water table?	Water table is known to occur within the sand and gravel deposit, with predicted water depth greater at the eastern portion of the site.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 2/3
Estimated Impact on local Ecology and Biodiversity	The site contains
Groundwater Protection Zones	No

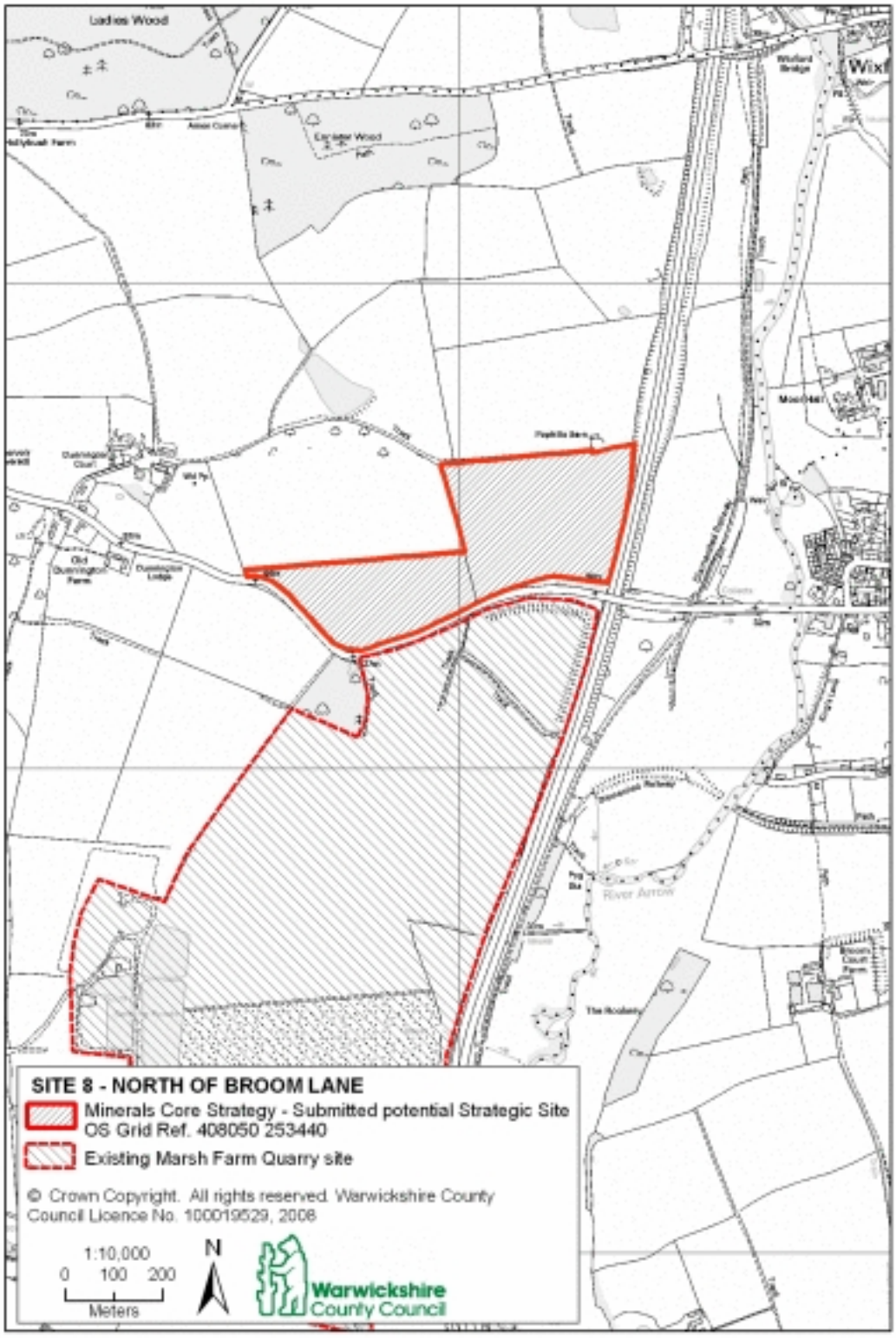
vii For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	8
Estimated Impact on overall Hydrology of the area.	None
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	A mixture of agricultural and open water, the latter designed to provide biodiversity benefits.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	For that part of the site where it is thought that agricultural restoration would be achievable Grade 2 should be possible.
Will the site require the importation of inert and other waste streams?	None
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity.
Can the site offer opportunities for schemes for flood risk management?	It may be possible for any scheme to win and work the mineral within this site to ameliorate flooding issues on Broom Lane in the vicinity of the site.

Potential Minerals Sites for Consideration



Map 4.8 Site 8 - North of Broom Lane, Marsh Farm Quarry

4

Potential Minerals Sites for Consideration

Site 9 - East of A46, Broom - Marsh Farm Quarry

Site number	Site 9 (submission 1)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land east of the A46, Broom
Grid Reference	SP085531 (Full coordinates: 408500;253100)
Parish	Salford Priors
Area (hectares)	20.1 hectares
Developer	Cemex Materials UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	HGV via existing Ragley (Marsh Farm) Quarry
Extension to existing works?*[1(viii)]	Yes; extension to Ragley Quarry. Portion of site currently benefits from planning permission for winning and working of sand and gravel.
Site Plan Included	**SP0752_CAW_D-271008_C**
Location of Site Access indicated	As existing Ragley Quarry
Route to Preferred Lorry Network*[2]	As per Ragley Quarry
Settlements and Constraints*[3]	Environmental protection to be provided to Broom village; proposed temporary use of Broom Lane to gain access to Marsh Farm. Proximity to Broom village.
Flood Zone Map	Site lies partially within flood zone.
Location of processing plant	Ragley Quarry
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None known
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	2nd River Terrace sand and gravel processable to construction specifications
End Uses of Mineral	Construction aggregates and ready mixed concrete
Estimated Resource (tonnes)	Estimated 0.5 million tonnes saleable sand and gravel
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000m3
Estimated Annual Output (tonnes)	250,000 tonnes on a campaign
Estimated Duration of Operations	2 year plus five years aftercare
Estimated Daily Vehicle Movements	As existing from Ragley Quarry
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area
Will extraction occur around or below the water table?	Recoverable sand and gravel deposits will lie within the water table
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 4
Estimated Impact on local Ecology and Biodiversity	Change from present to increase biodiversity to ecological advantage
Groundwater Protection Zones	No

viii For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	Site 9 (submission 1)
Estimated Impact on overall Hydrology of the area.	Temporary local interference only
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Mainly a wet restoration angled towards biodiversity gains and flood alleviation
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Scope for a agricultural restoration likely to be limited.
Will the site require the importation of inert and other waste streams?	None
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	Potential to provide flood storage capacity for the adjacent River Arrow, reducing potential flood risk to a number of residential properties within the village of Broom itself.

4 Potential Minerals Sites for Consideration

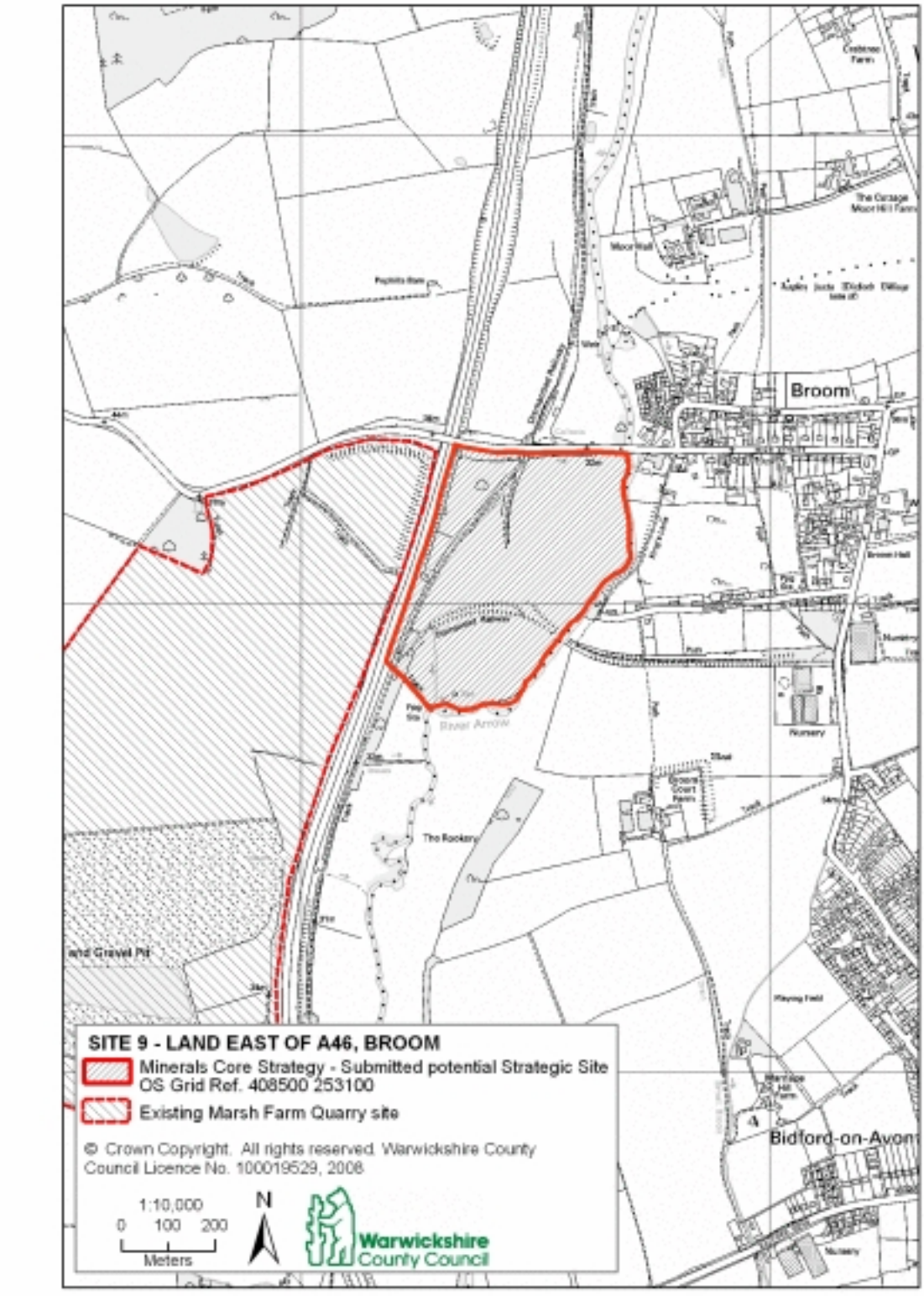
Site number	Site 9 (submission 2)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land at Broom
Grid Reference	SP085531 (Full co-ordinates: 408500;253100)
Parish	Salford Priors
Area (hectares)	Approximately 4 hectares
Developer	Cemex UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	Road lorries to Marsh Farm
Extension to existing works?*[1(ix)]	Yes; extension to Marsh Farm Quarry
Site Plan Included	**61016/1/MB1**
Location of Site Access indicated	As existing for Marsh Farm Quarry
Route to Preferred Lorry Network*[2]	Directly onto network from Marsh Farm Quarry
Settlements and Constraints*[3]	Environmental protection to be provided to Broom village; proposed temporary use of Broom Lane to gain access to Marsh Farm.
Flood Zone Map	Workings in flood zone
Location of processing plant	As existing for Marsh Farm Quarry
Ancillary Developments required?	None known
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Borders Special Landscape Area
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	2nd River terrace sand and gravel processable to construction specifications.
End Uses of Mineral	Construction aggregates and materials
Estimated Resource (tonnes)	Estimated 0.4 million tonnes saleable sand and gravel
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000m3
Estimated Annual Output (tonnes)	300,000 tonnes on a campaign working basis
Estimated Duration of Operations	1 year plus five years aftercare
Estimated Daily Vehicle Movements	As existing from Marsh Farm Quarry
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area
Will extraction occur around or below the water table?	Water is present in the floodplain of the River Arrow
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 4
Estimated Impact on local Ecology and Biodiversity	Change from present to increase biodiversity to ecological advantage
Groundwater Protection Zones	No
Estimated Impact on overall Hydrology of the area.	Temporary local interference only

ix For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	Site 9 (submission 2)
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Balanced mix of leisure amenity, lake areas and biodiversity
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Where agriculture is proposed restoration to same grade will be achieved.
Will the site require the importation of inert and other waste steams?	None envisaged, although capacity to adsorb some will be available
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	Potential to incorporate flood protection scheme to provide some relief to Millers Bank, Brook Village and riverside land.

4 Potential Minerals Sites for Consideration



Map 4.9 Site 9 - East of A46, Broom - Marsh Farm Quarry

Potential Minerals Sites for Consideration

Site 10 - Land at Millers Bank, Marsh Farm Quarry

Site number	Site 10 (submission 1)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Millers Bank, Broom Lane, Broom
Grid Reference	SP085535 (Full coordinates: 408500;253500)
Parish	Salford Priors
Area (hectares)	9.1 hectares
Developer	Cemex Materials UK Limited
Landowner	Ragley Estate and others unknown
Mode of Transport for Mineral	HGV via existing Ragley (Marsh Farm) Quarry
Extension to existing works?*[1(x)]	Yes; extension to Ragley Quarry
Site Plan Included	**SP0751_CAW_D_271008_B**
Location of Site Access indicated	As existing Ragley Quarry
Route to Preferred Lorry Network*[2]	As per Ragley Quarry
Settlements and Constraints*[3]	Proximity to Broom village
Flood Zone Map	Site lies partially within flood zone
Location of processing plant	Ragley Quarry
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None known
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	2nd river terrace sand and gravel processable to construction
End Uses of Mineral	Construction aggregates and ready mixed concrete
Estimated Resource (tonnes)	Estimated 0.6 million tonnes saleable sand and gravel
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000m3
Estimated Annual Output (tonnes)	300,000 tonnes on a campaign working basis
Estimated Duration of Operations	2 years plus five years aftercare
Estimated Daily Vehicle Movements	As existing from Ragley Quarry
Destination of mineral, market or further processing facility.	Construction sites in the south west Warwickshire market area
Will extraction occur around or below the water table?	Recoverable sand and gravel deposits will lie within the water table.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 4
Estimated Impact on local Ecology and Biodiversity	Change from present to increase biodiversity to ecological advantage
Groundwater Protection Zones	Not known

x For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	Site 10 (submission 1)
Estimated Impact on overall Hydrology of the area.	Temporary local interference only
Restoration Options	
Please provided outline details of the restoration scheme including:	Mainly a wet restoration angled towards biodiversity gains and flood alleviation.
What are the proposed site after-uses?	Scope for agricultural restoration likely to be limited.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	
Will the site require the importation of inert and other waste streams?	None
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	Potential to provide flood storage capacity for the adjacent River Arrow, reducing potential flood risk to a number of residential properties within the village of Broom itself.

Potential Minerals Sites for Consideration

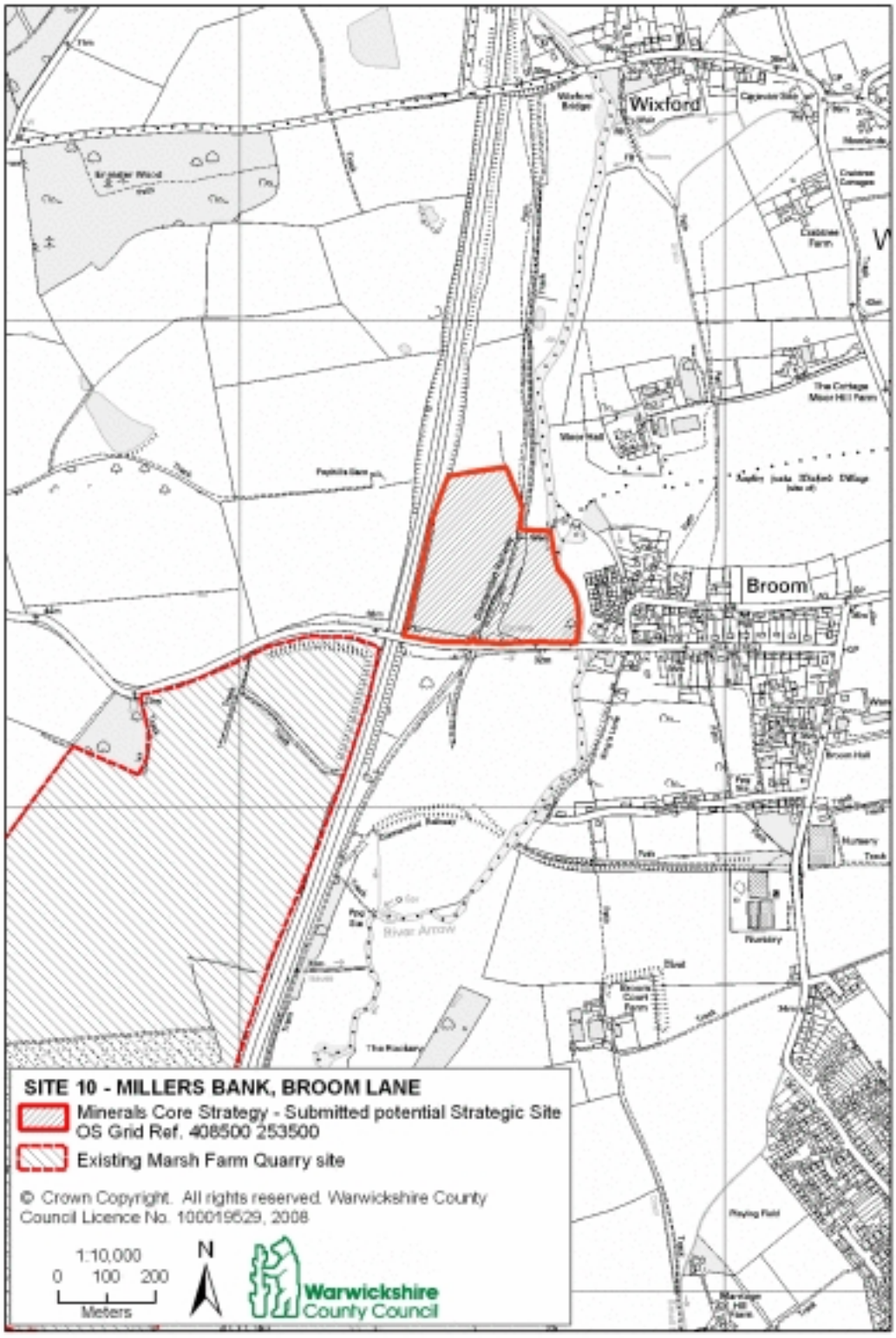
Site number	Site 10 (submission 2)
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land at Millers Bank as shown generally on the attached plan coloured orange
Grid Reference	SP085535 (Full coordinates: 408500;253500)
Parish	Salford Priors
Area (hectares)	Approximately 5 hectares
Developer	Cemex UK Limited
Landowner	Ragley Estate
Mode of Transport for Mineral	Road; Lorries only to Marsh Farm process plant site
Extension to existing works?*[1(xi)]	Yes; extension to Marsh Farm Quarry
Site Plan Included	**61016/1/MB1**
Location of Site Access indicated	As existing for Marsh Farm Quarry
Route to Preferred Lorry Network*[2]	Directly onto network from Marsh Farm Quarry
Settlements and Constraints*[3]	Environmental protection to be provided to Broom village; proposed temporary use of Broom Lane to gain access to Marsh Farm
Flood Zone Map	Workings in Flood zone
Location of processing plant	As existing for Marsh Farm Quarry
Ancillary Developments required?	None known
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Border of Special Landscape Area
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	2nd river terrace sand and gravel processable to construction specifications use
End Uses of Mineral	Construction aggregates and materials
Estimated Resource (tonnes)	Estimated 0.6 million tonnes saleable sand and gravel
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000 m3
Estimated Annual Output (tonnes)	300,000 tonnes on a campaign working basis
Estimated Duration of Operations	2 years plus five years aftercare
Estimated Daily Vehicle Movements	As existing from Marsh Farm Quarry
Destination of mineral, market or further processing facility.	Construction sites and plants in the Stratford upon Avon DC and the south west Warwickshire market area
Will extraction occur around or below the water table?	Water is present in the floodplain of the River Arrow
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 4
Estimated Impact on local Ecology and Biodiversity	Change from present to provide increase of biodiversity to ecological advantage
Groundwater Protection Zones	No
Estimated Impact on overall Hydrology of the area.	Temporary local interference only

xi For key, see Site 27, page 163)

4 Potential Minerals Sites for Consideration

Site number	Site 10 (submission 2)
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Balanced mix of leisure amenity, lake areas and biodiversity
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Where agriculture is proposed restoration to same grade will be achieved
Will the site require the importation of inert and other waste streams?	None envisaged, although capacity to absorb some will be available
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	Potential to incorporate flood protection scheme to provide some relief to Millers Bank, Brook Village and riverside land.

Potential Minerals Sites for Consideration



Map 4.10 Site 10 - Millers Bank, Marsh Farm Quarry

4

Potential Minerals Sites for Consideration

Site 11 - Meikle Land

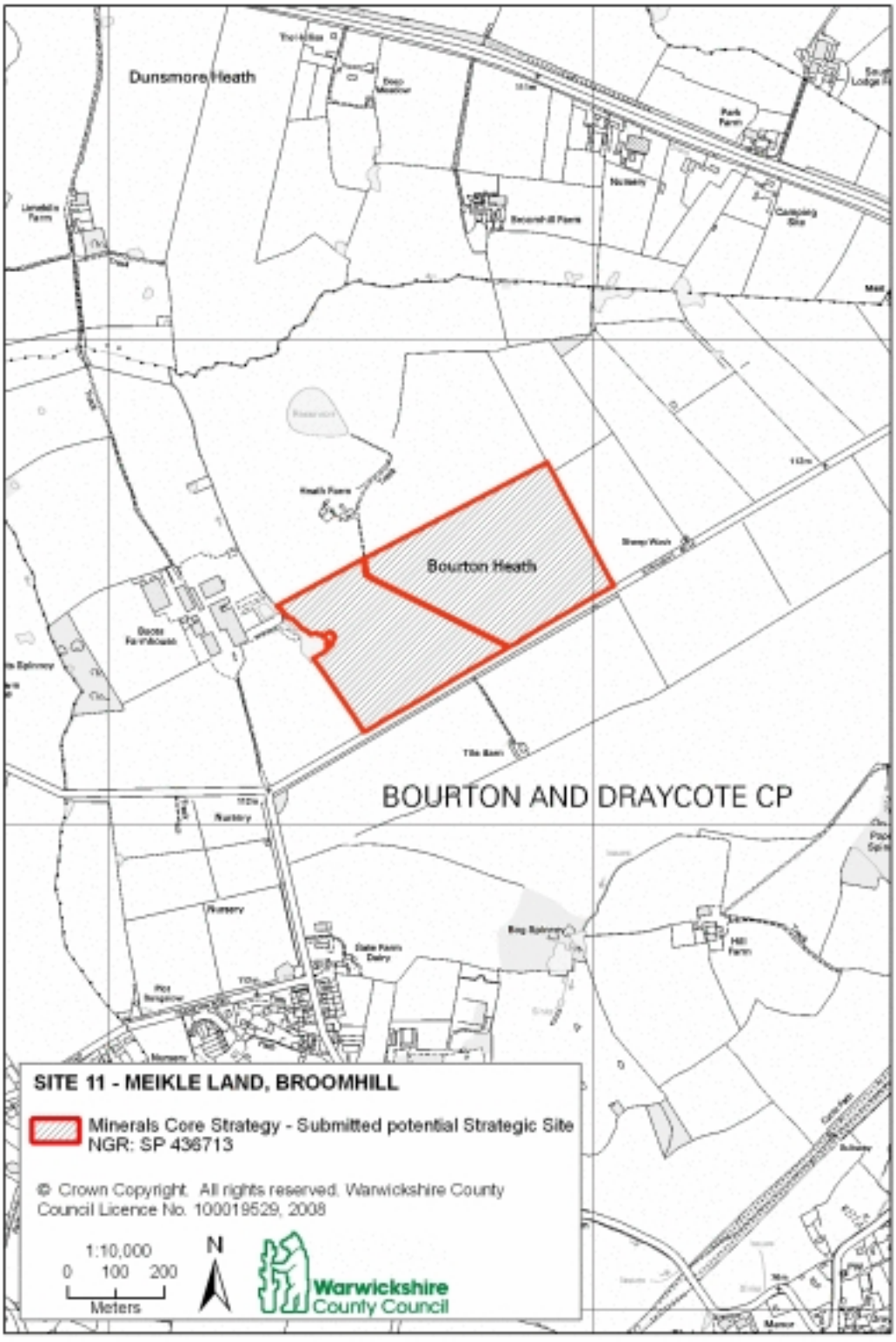
Site number	11
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Heath Farm, Bourton
Grid Reference	SP436 713
Parish	Bourton
Area (hectares)	16.4 ha
Developer	BRETT
Landowner	Mr Meikle
Mode of Transport for Mineral	Road
Extension to existing works?*[1(xii)]	Yes, extension to main Broomhill site
Site Plan Included	
Location of Site Access indicated	Yes, on plan attached
Route to Preferred Lorry Network*[2]	Straight mile to A45/M45
Settlements and Constraints*[3]	None nearby
Flood Zone Map	Attached – section 6[(xiii)]
Location of processing plant	Shown on plan attached – section 2
Ancillary Developments required?	See statement below
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None on or near site
Archaeological Features and historic buildings*[5]	
Local ecological and geological features*[6]	See section 7
Operational Details	
Geological Formation and details	Dunsmore gravel
End Uses of Mineral	Concreting agg +/or bagged construction material.
Estimated Resource (tonnes)	500,000 tonnes
Overburden Thickness and Details	1m of soil and subsoil
Estimated Annual Output (tonnes)	150,000 tonnes
Estimated Duration of Operations	3 years
Estimated Daily Vehicle Movements	30 in/30 out and similar for inert fill
Destination of mineral, market or further processing facility.	See statement below
Will extraction occur around or below the water table?	Below water table
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Probably. ALC survey for this site not yet available.
Estimated Impact on local Ecology and Biodiversity	Minimal – land all in arable use, no loss of trees.
Groundwater Protection Zones	N/A, see section 6

xii For key, see Site 27, page 163)
xiii Attached statement is available at www.warwickshire.gov.uk/mineralscorestrategy

Potential Minerals Sites for Consideration

Site number	11
Estimated Impact on overall Hydrology of the area.	Minimal
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Restored to Agricultural uses.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes, see statement
Will the site require the importation of inert and other waste streams?	Yes
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes. By 'Gapping' Up hedgerows.
Can the site offer opportunities for schemes for flood risk management?	Yes if required. Site is not in flood risk area.

4 Potential Minerals Sites for Consideration



Map 4.11 Site 11 - Meikle Land

Potential Minerals Sites for Consideration

Site 12 - Gethin Land

Site number	12
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Broomhill Farm, Bourton
Grid Reference	SP442 719
Parish	Bourton on Dunsmore
Area (hectares)	13.8 tonnes
Developer	Brett
Landowner	Mr E R Gethin
Mode of Transport for Mineral	By road
Extension to existing works?*[1(xiv)]	Yes – extension to Broomhill Farm when developed
Site Plan Included	
Location of Site Access indicated	On plan BF/L1 attached
Route to Preferred Lorry Network*[2]	Straight mile to A45/M45
Settlements and Constraints*[3]	No residential properties/constraints nearby
Flood Zone Map	Attached
Location of processing plant	On plan Bf/L1 attached
Ancillary Developments required?	See statement below[(xv)]
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None on or near site
Archaeological Features and historic buildings*[5]	See statement below and sections 9 & 10
Local ecological and geological features*[6]	See section 7
Operational Details	
Geological Formation and details	Dunsmore Gravel
End Uses of Mineral	Concreting aggregate/bagged construction materials
Estimated Resource (tonnes)	550,000 tonnes
Overburden Thickness and Details	1m see soils report
Estimated Annual Output (tonnes)	150,000 tonnes per year
Estimated Duration of Operations	3.5 – 4 years for mineral extraction
Estimated Daily Vehicle Movements	30 in/ 30 out for mineral and similar inert waste
Destination of mineral, market or further processing facility.	See statement (below)
Will extraction occur around or below the water table?	Below water table
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes, see report attached Section 11
Estimated Impact on local Ecology and Biodiversity	Minimal, see statement attached, section 7 & 12

xiv For key, see Site 27, page 164)

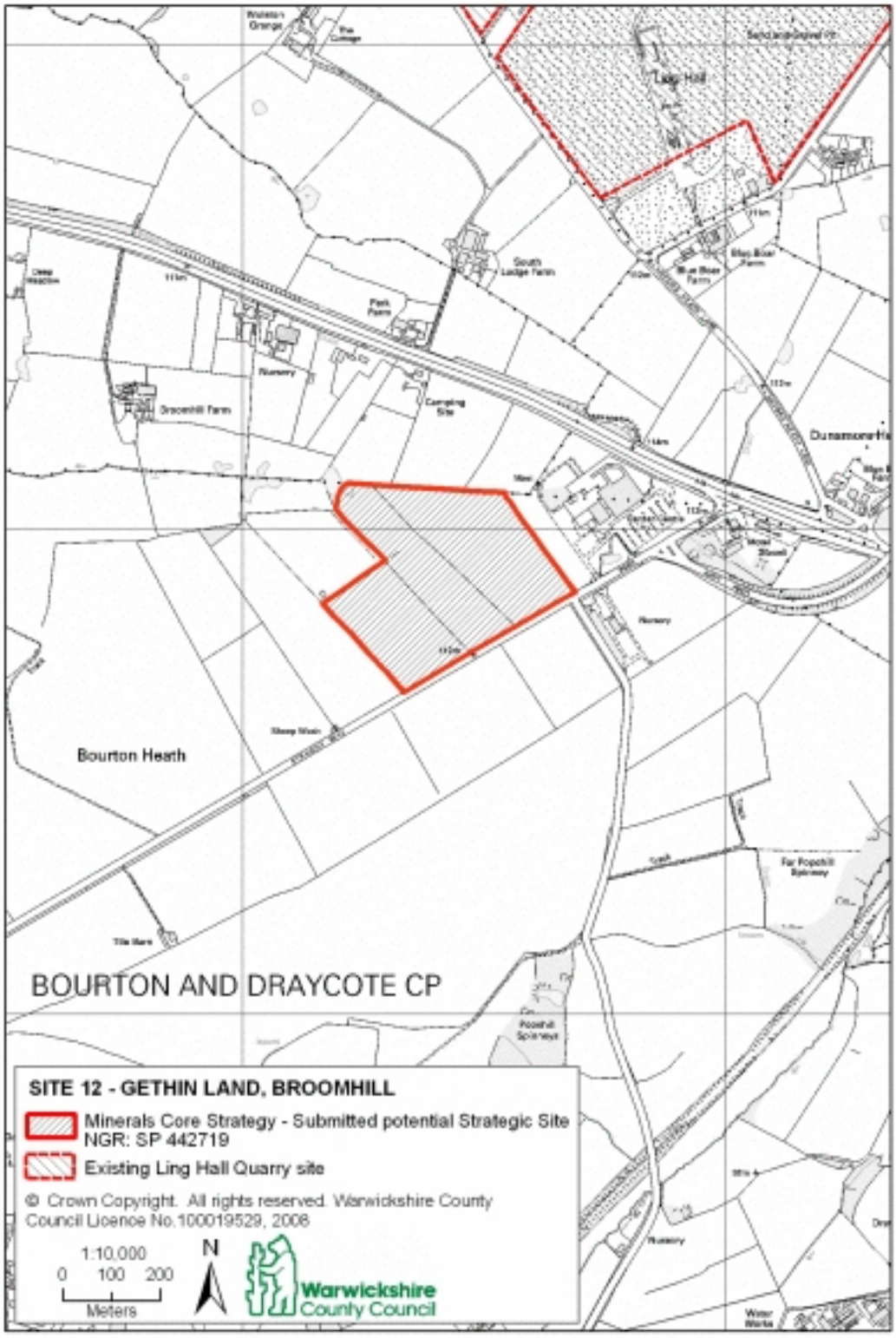
xv Attached statement available at www.warwickshire.gov.uk/mineralscorestrategy

4

Potential Minerals Sites for Consideration

Site number	12
Groundwater Protection Zones	See plan attached, section 6
Estimated Impact on overall Hydrology of the area.	No impact on hydrology See statement attached, section 6
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Agriculture with improved habitat creation
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes, see statement below and case study (section 14)
Will the site require the importation of inert and other waste streams?	Yes, see statement below and section 13
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes see section 12
Can the site offer opportunities for schemes for flood risk management?	Possibly in short term, but site is not in a flood risk area.

Potential Minerals Sites for Consideration



Map 4.12 Site 12 - Gethin Land

4

Potential Minerals Sites for Consideration

Site 13 - Broomhill Farm, Straight Mile

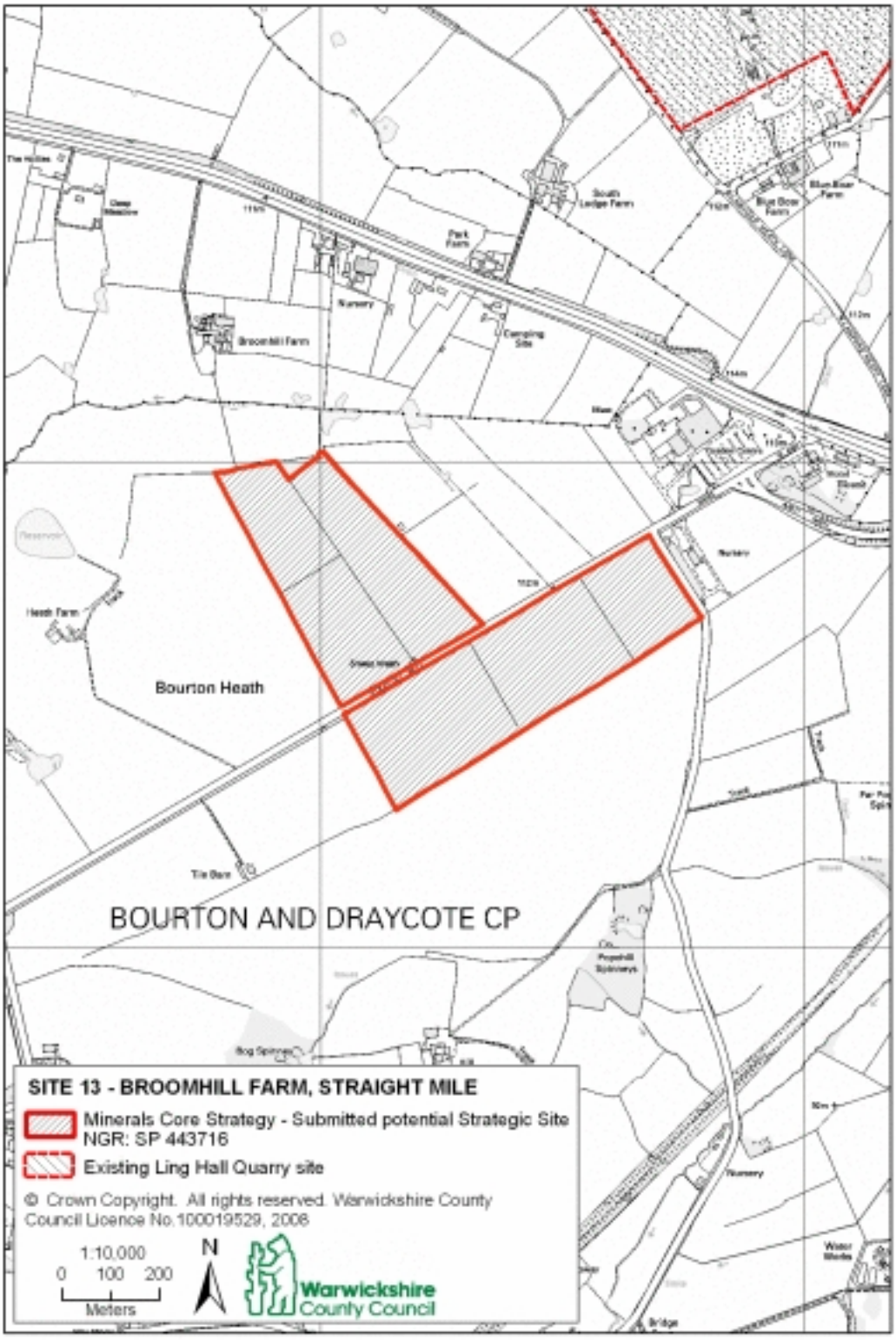
Site number	13
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Broomhill Farm, Straight Mile, Bourton
Grid Reference	SP 443 716
Parish	Bourton-on-Dunsmore
Area (hectares)	29.2 ha
Developer	Brett Aggregates Ltd
Landowner	Brett
Mode of Transport for Mineral	Lorry
Extension to existing works?*[1(xvi)]	No – new site
Site Plan Included	
Location of Site Access indicated	Plan BF/L2 (Section 2)
Route to Preferred Lorry Network*[2]	(Section 3)[(xvii)]
Settlements and Constraints*[3]	See landscape report (section 5)
Flood Zone Map	Section 6
Location of processing plant	Plan BF/L2 (section 2)
Ancillary Developments required?	See covering statement
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None on or near site – see plan (section 2) and section 7.
Archaeological Features and historic buildings*[5]	See section 8 & 9 and map (section 2).
Local ecological and geological features*[6]	See section 12.
Operational Details	
Geological Formation and details	See section 10.
End Uses of Mineral	Concreting aggregate/bagged construction material
Estimated Resource (tonnes)	1,150,000 tonnes
Overburden Thickness and Details	Average 1.1m thick
Estimated Annual Output (tonnes)	150,000 tonnes
Estimated Duration of Operations	7.5 years (10 years total)
Estimated Daily Vehicle Movements	30 in/30 out for mineral and similar for inert waste (later start)
Destination of mineral, market or further processing facility.	See statement (below)
Will extraction occur around or below the water table?	Below water table (in part)
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes, see section 11
Estimated Impact on local Ecology and Biodiversity	Minimal, see section 12
Groundwater Protection Zones	N/A – see plan in section 6

xvi For key, see Site 27, page 163)
xvii Attached statement available at www.warwickshire.gov.uk/mineralscorestrategy)

Potential Minerals Sites for Consideration

Site number	13
Estimated Impact on overall Hydrology of the area.	No impact on hydrology. See section 6.
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Agriculture with improved habitat (see section 12)
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes, see statement (below) and case study (section 14)
Will the site require the importation of inert and other waste streams?	Yes, (see section 13)
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes, (see section 12)
Can the site offer opportunities for schemes for flood risk management?	Possibly in the short term if required (but not in flood risk zone).

4 Potential Minerals Sites for Consideration



Map 4.13 Site 13 - Broomhill Farm, Straight Mile

Potential Minerals Sites for Consideration

Site 14 - Ling Hall Quarry Extension - Lawford Heath

Site number	14
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Ling Hall Quarry, Lawford Heath, near Rugby
Grid Reference	445624. 274243
Parish	Wolston/Church Lawford/Long Lawford
Area (hectares)	6.30 ha
Developer	Ennstone Johnston Limited
Landowner	To be advised
Mode of Transport for Mineral	As existing, via HGV
Extension to existing works?*[1(xviii)]	Yes
Site Plan Included	
Location of Site Access indicated	As existing via Coal Pitt Lane
Route to Preferred Lorry Network*[2]	As existing to A45 (T)/M45
Settlements and Constraints*[3]	The proposed site is relatively isolated
Flood Zone Map	Not applicable
Location of processing plant	As existing
Ancillary Developments required?	Not applicable
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Not applicable
Archaeological Features and historic buildings*[5]	Yes
Local ecological and geological features*[6]	Not applicable
Operational Details	
Geological Formation and details	Dunsmore Gravel (fluvioglacial)
End Uses of Mineral	Construction aggregates, concrete, asphalt
Estimated Resource (tonnes)	c. 0.9 million tonnes
Overburden Thickness and Details	Up to c.0.6 m
Estimated Annual Output (tonnes)	250,000 tonnes per annum
Estimated Duration of Operations	3-4 years
Estimated Daily Vehicle Movements	As existing c.90/day (including concrete mixers)
Destination of mineral, market or further processing facility.	As existing
Will extraction occur around or below the water table?	Around the water table
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes
Estimated Impact on local Ecology and Biodiversity	Not significant
Groundwater Protection Zones	Not applicable

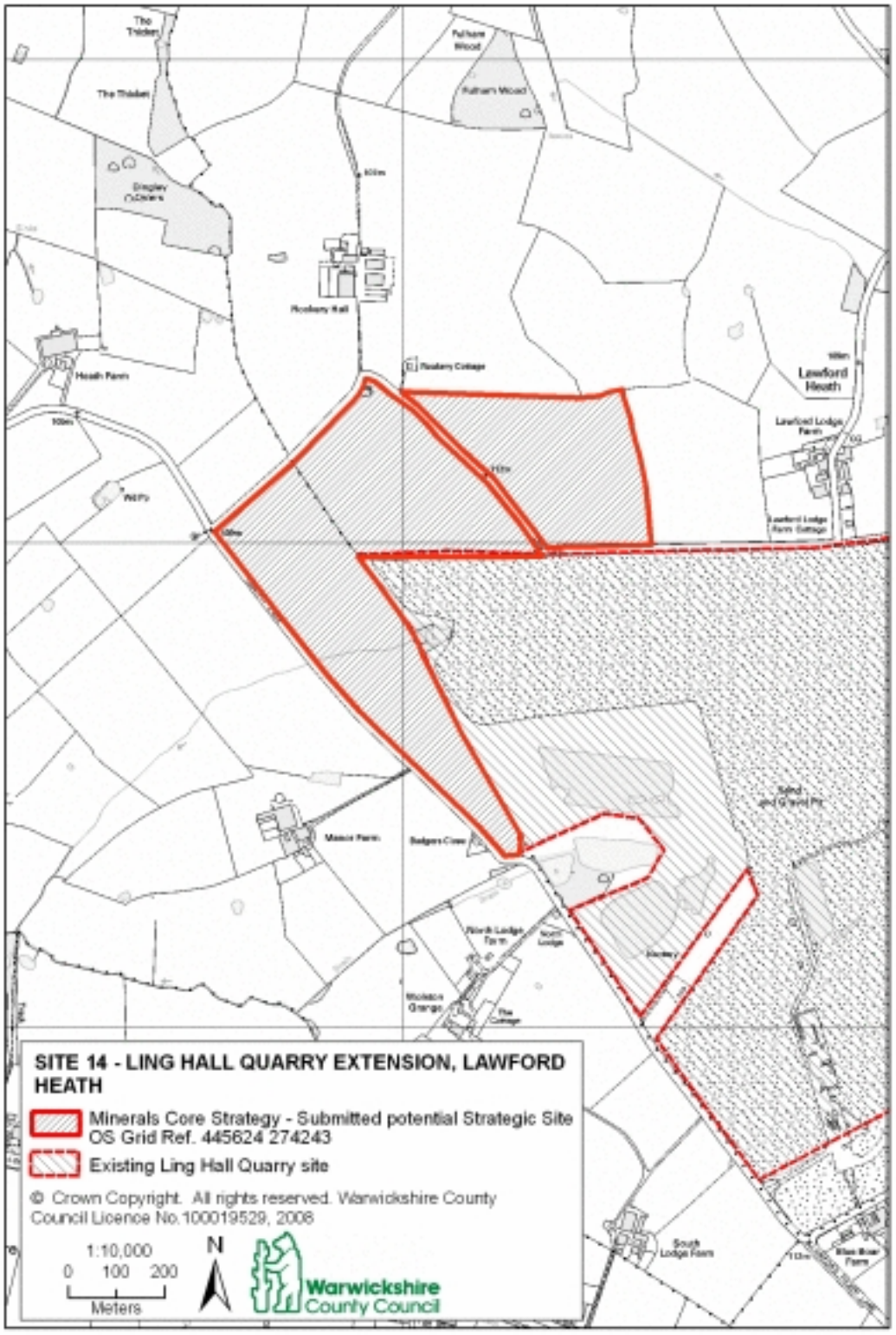
xviii For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	14
Estimated Impact on overall Hydrology of the area.	Not significant
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Agriculture
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Unlikely
Can the site offer opportunities for schemes for flood risk management?	No

Potential Minerals Sites for Consideration



Map 4.14 Site 14 - Ling Hall Extension - Lawford Heath

4

Potential Minerals Sites for Consideration

Site 15 - Brinklow Quarry Extension Proposal 1

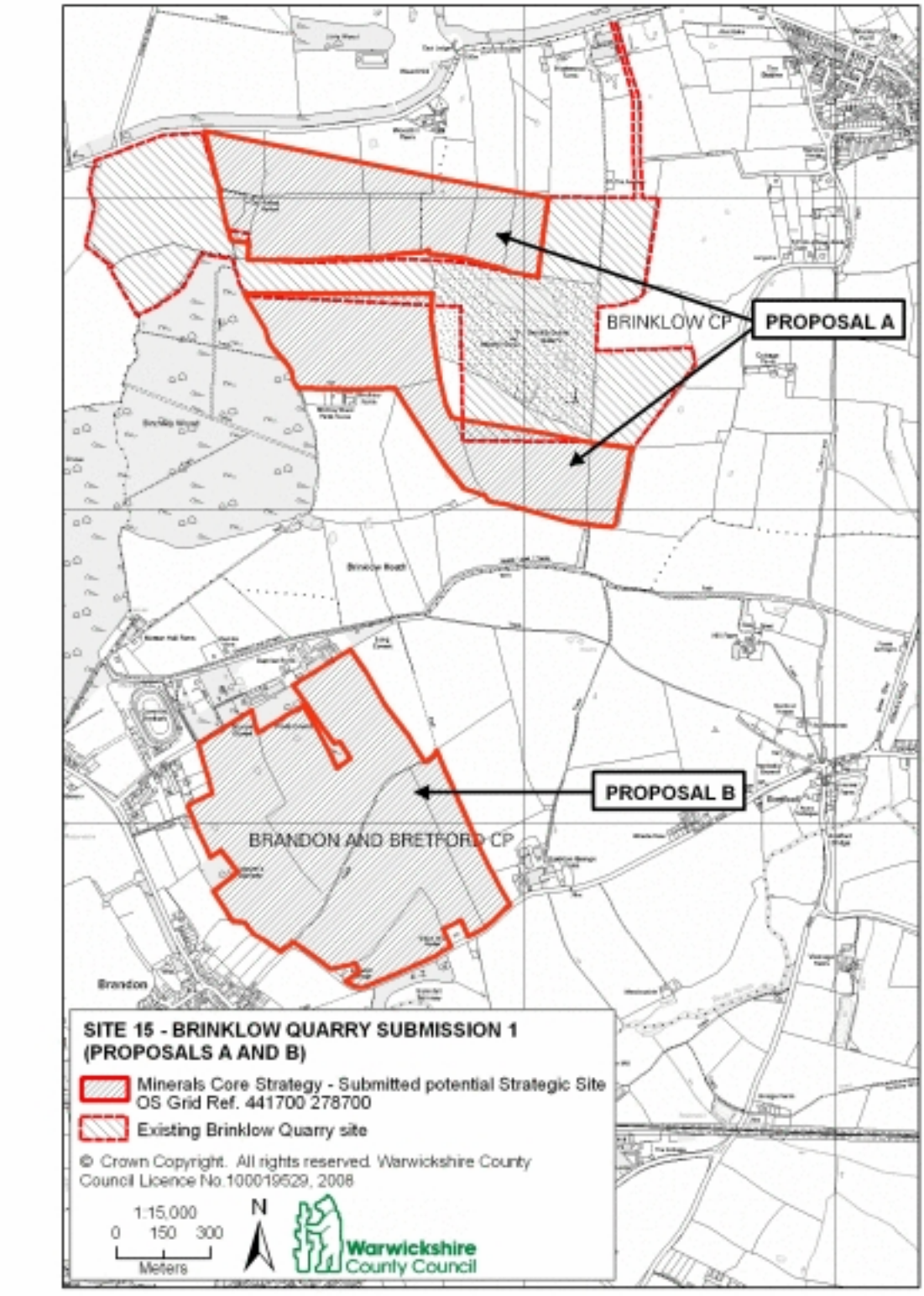
Site number	15
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Brinklow Quarry, Coventry Road
Grid Reference	441700, 278700
Parish	Brinklow, Brandon & Bretford
Area (hectares)	Area N: 29.8, Area S: 37.7 Area 2: 64
Developer	Brinklow Quarry
Landowner	Brinklow Quarry and above
Mode of Transport for Mineral	Road
Extension to existing works?*[1(xix)]	Shown on plan
Site Plan Included	
Location of Site Access indicated	Identified on plan
Route to Preferred Lorry Network*[2]	5.2 kilometres to A45 via B4027
Settlements and Constraints*[3]	Within RSS development corridor
Flood Zone Map	Not within flood zone
Location of processing plant	Existing plant shown on plan
Ancillary Developments required?	Conveyor wayleave from area 2
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Coombe Pools SSSI to north east of site approx 1.4km from Area North
Archaeological Features and historic buildings*[5]	None identified and no historical evidence from other operations
Local ecological and geological features*[6]	Birchley Wood Semi Ancient Woodland Privet Covert in National Inventory
Operational Details	
Geological Formation and details	
End Uses of Mineral	Construction
Estimated Resource (tonnes)	Nth: 1.1mt, sth: 0.7mt, Area 2: 2.5mt
Overburden Thickness and Details	Nth: 7m, sth: 5m, Area 2: 1.5m
Estimated Annual Output (tonnes)	75 – 100,000
Estimated Duration of Operations	15 years
Estimated Daily Vehicle Movements	100
Destination of mineral, market or further processing facility.	Local markets
Will extraction occur around or below the water table?	Both
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No
Estimated Impact on local Ecology and Biodiversity	Minimal impact with suitable mitigation measures
Groundwater Protection Zones	Outer zone

xix For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	15
Estimated Impact on overall Hydrology of the area.	Limited impact because of frequent wash outs in reserves
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Low level water features and new wildlife corridors
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	N/A
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes. Opportunities to develop BAP objectives by increasing species levels in the area and providing new habitats over intensive farming area.
Can the site offer opportunities for schemes for flood risk management?	Yes. Area 2 south close to flood plain of R Avon and offers potential.

4 Potential Minerals Sites for Consideration



Map 4.15 Site 15 - Brinklow Quarry Extension (submission 1)

Potential Minerals Sites for Consideration

Site 16 - Manor Farm

Site number	16
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Part of Manor Farm, adjoining Ling Hall Quarry
Grid Reference	445624 274243
Parish	Wolston/Church Lawford/Long Lawford
Area (hectares)	6.3ha
Developer	Ennstone Johnstone Ltd
Landowner	Bonds Hospital Estate Charity
Mode of Transport for Mineral	As existing.
Extension to existing works?*[1(xx)]	Yes – Ling Hall Quarry
Site Plan Included	
Location of Site Access indicated	As existing – Ling Hall Quarry entrance
Route to Preferred Lorry Network*[2]	As existing to A445T/M45
Settlements and Constraints*[3]	None
Flood Zone Map	N/A
Location of processing plant	As existing
Ancillary Developments required?	N/A
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	N/A
Archaeological Features and historic buildings*[5]	Yes
Local ecological and geological features*[6]	N/A
Operational Details	
Geological Formation and details	Dunsmore Gravel – proven by boreholes/trial pits
End Uses of Mineral	Construction
Estimated Resource (tonnes)	0.9mt
Overburden Thickness and Details	<0.6m
Estimated Annual Output (tonnes)	250,000tpa
Estimated Duration of Operations	3-4 years
Estimated Daily Vehicle Movements	As existing
Destination of mineral, market or further processing facility.	As existing
Will extraction occur around or below the water table?	Not anticipated
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	To be assessed
Estimated Impact on local Ecology and Biodiversity	Anticipated to be low
Groundwater Protection Zones	N/A

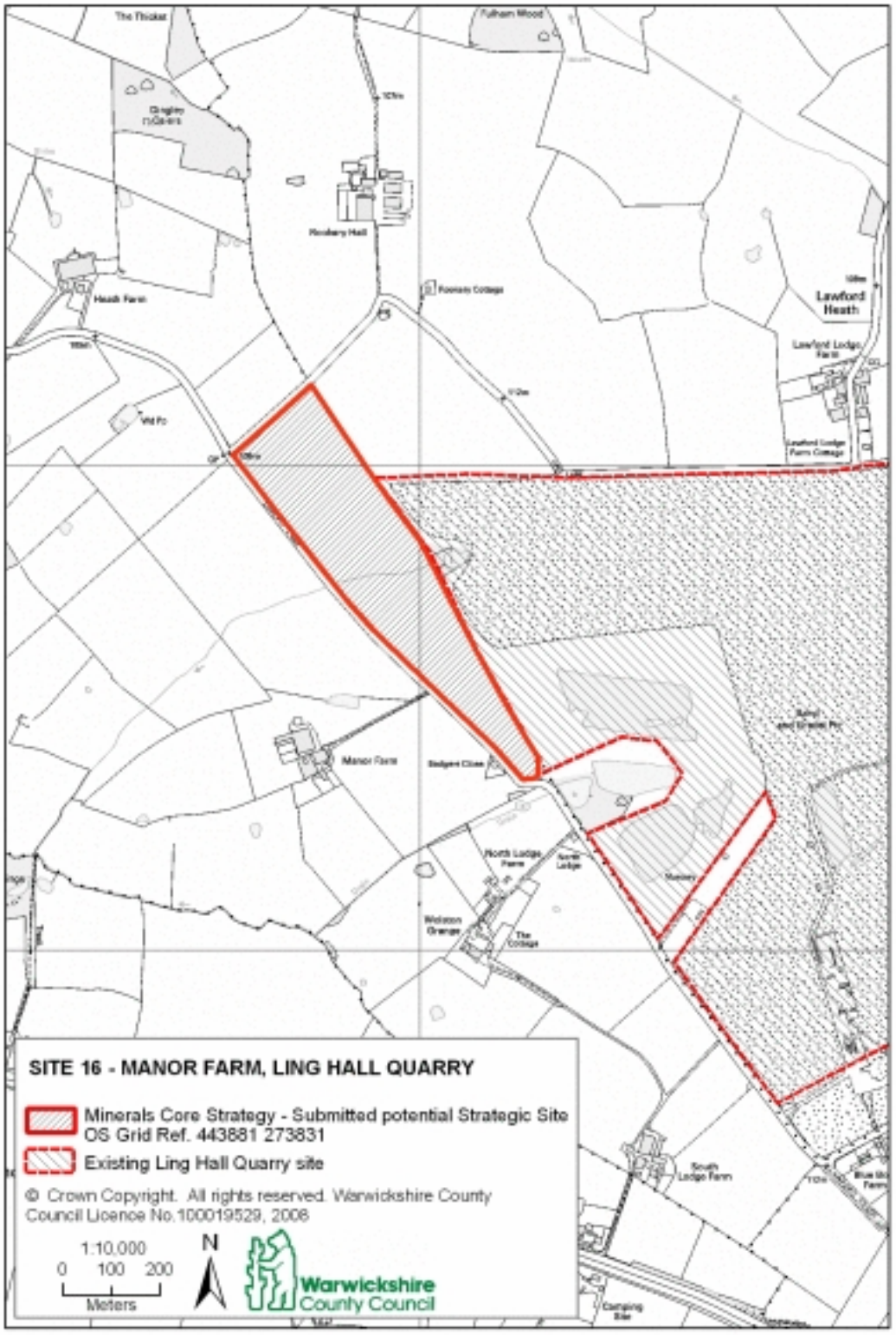
xx For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	16
Estimated Impact on overall Hydrology of the area.	Not significant
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Restoration to agriculture
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Unlikely
Can the site offer opportunities for schemes for flood risk management?	No

Potential Minerals Sites for Consideration



Map 4.16 Site 16 - Manor Farm, Ling Hall Extension

4 Potential Minerals Sites for Consideration

Site 17 - Brinklow Quarry Extension Proposal 2

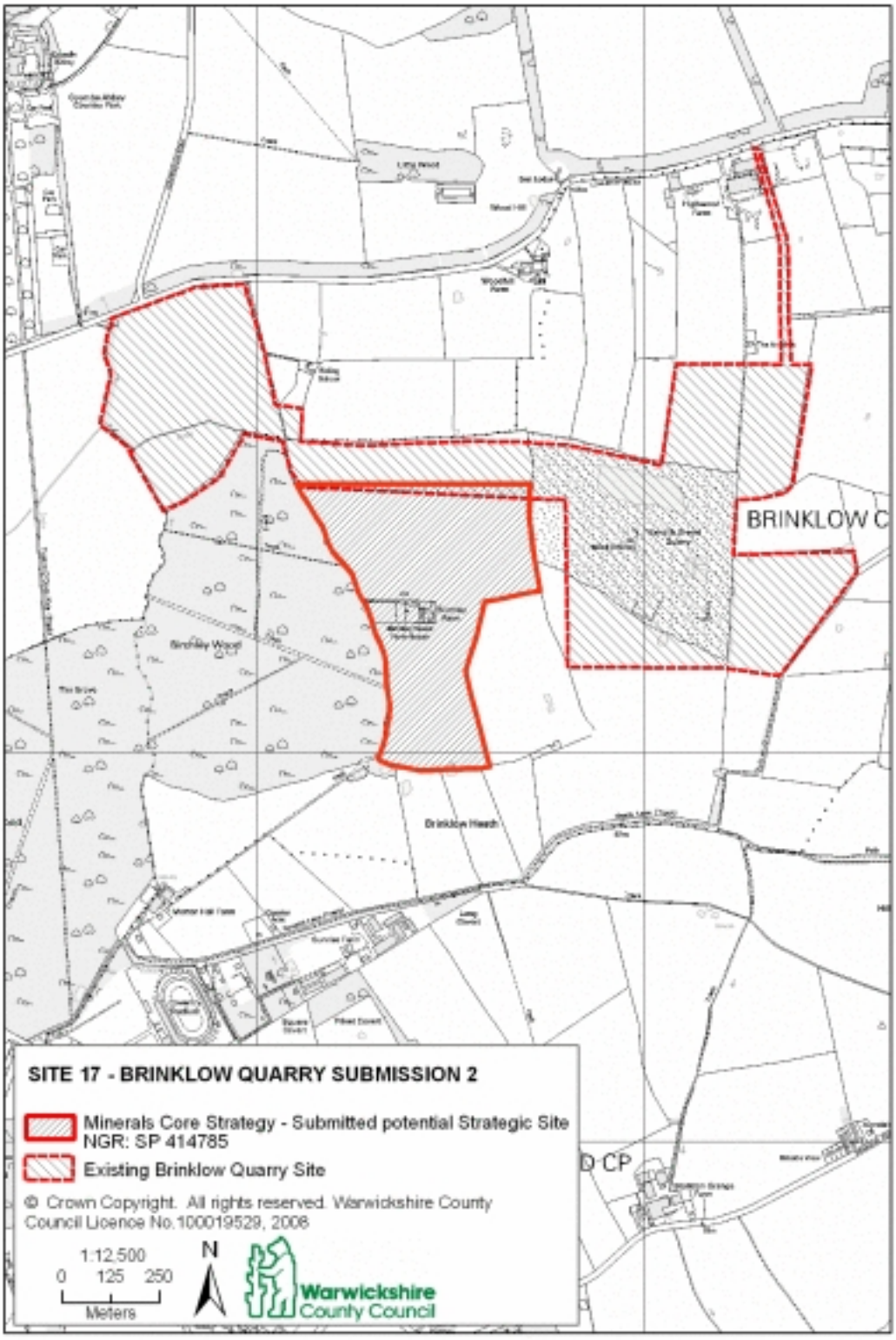
Site number	17
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Clay, Sand and Gravel
Address	Brandon Grange Farm, Brandon
Grid Reference	SP 414 785
Parish	Brinklow
Area (hectares)	Approx 17ha
Developer	Potentially Brinklow Quarry
Landowner	JC Channing & Sons
Mode of Transport for Mineral	Field Conveyor and Road
Extension to existing works?*[1(xxi)]	Yes – Brinklow Quarry
Site Plan Included	
Location of Site Access indicated	See drawing No 0502-1-3
Route to Preferred Lorry Network*[2]	See Halletec report HH/78/220
Settlements and Constraints*[3]	See Halletec report HH/78/220
Flood Zone Map	Yes – Flood Zone 1
Location of processing plant	Within existing quarry.
Ancillary Developments required?	No
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None identified
Archaeological Features and historic buildings*[5]	None identified
Local ecological and geological features*[6]	Birchley Woods – no further features identified
Operational Details	
Geological Formation and details	
End Uses of Mineral	Clay – tile manufacture. Sand and Gravel – construction aggregates.
Estimated Resource (tonnes)	1.4 mt sand and gravel.
Overburden Thickness and Details	3m clays – potentially saleable.
Estimated Annual Output (tonnes)	Not known
Estimated Duration of Operations	Not known
Estimated Daily Vehicle Movements	
Destination of mineral, market or further processing facility.	Countywide – no further processing required
Will extraction occur around or below the water table?	Predominantly above – base of deposit below water table.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Believed to be grades 3a and 3b.
Estimated Impact on local Ecology and Biodiversity	Minimal – currently agriculture land.
Groundwater Protection Zones	Not within the protection zone.

xxi For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	17
Estimated Impact on overall Hydrology of the area.	Minimal hydrology of the area.
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Woodland or wet woodland
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Unlikely to be restored to agriculture. To be restored to enhance biodiversity.
Will the site require the importation of inert and other waste streams?	Not required, but a possibility.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes – potentially through the improvement from agriculture land to woodland or wet woodland.
Can the site offer opportunities for schemes for flood risk management?	None required locally.

4 Potential Minerals Sites for Consideration



Map 4.17 Site 17 - Brinklow Quarry (submission 2)

Potential Minerals Sites for Consideration

Site 18 - North of Bourton-on-Dunsmore

Site number	18
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land north of Bourton on Dunsmore
Grid Reference	444000, 271200
Parish	Bourton & Draycote
Area (hectares)	51 hectares
Developer	To be identified
Landowner	Trustees of the Shaw-Fox Estate
Mode of Transport for Mineral	Road
Extension to existing works?*[1(xxii)]	No
Site Plan Included	
Location of Site Access indicated	Shown on plan
Route to Preferred Lorry Network*[2]	A45 1.5 kilometres to North East
Settlements and Constraints*[3]	Shown on plan
Flood Zone Map	No flood risk
Location of processing plant	To be determined
Ancillary Developments required?	No
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Bog Spinney: Ancient Woodland Draycote Meadows SSSI; see plan
Archaeological Features and historic buildings*[5]	Shown on plan where identified
Local ecological and geological features*[6]	Shown on plan where identified
Operational Details	
Geological Formation and details	
End Uses of Mineral	Construction
Estimated Resource (tonnes)	1.5m
Overburden Thickness and Details	0.4m soil
Estimated Annual Output (tonnes)	250,000
Estimated Duration of Operations	6 years
Estimated Daily Vehicle Movements	50
Destination of mineral, market or further processing facility.	Local development projects
Will extraction occur around or below the water table?	Above and below perched water
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No
Estimated Impact on local Ecology and Biodiversity	Limited with good mitigation giving enhanced opportunity to help BAP

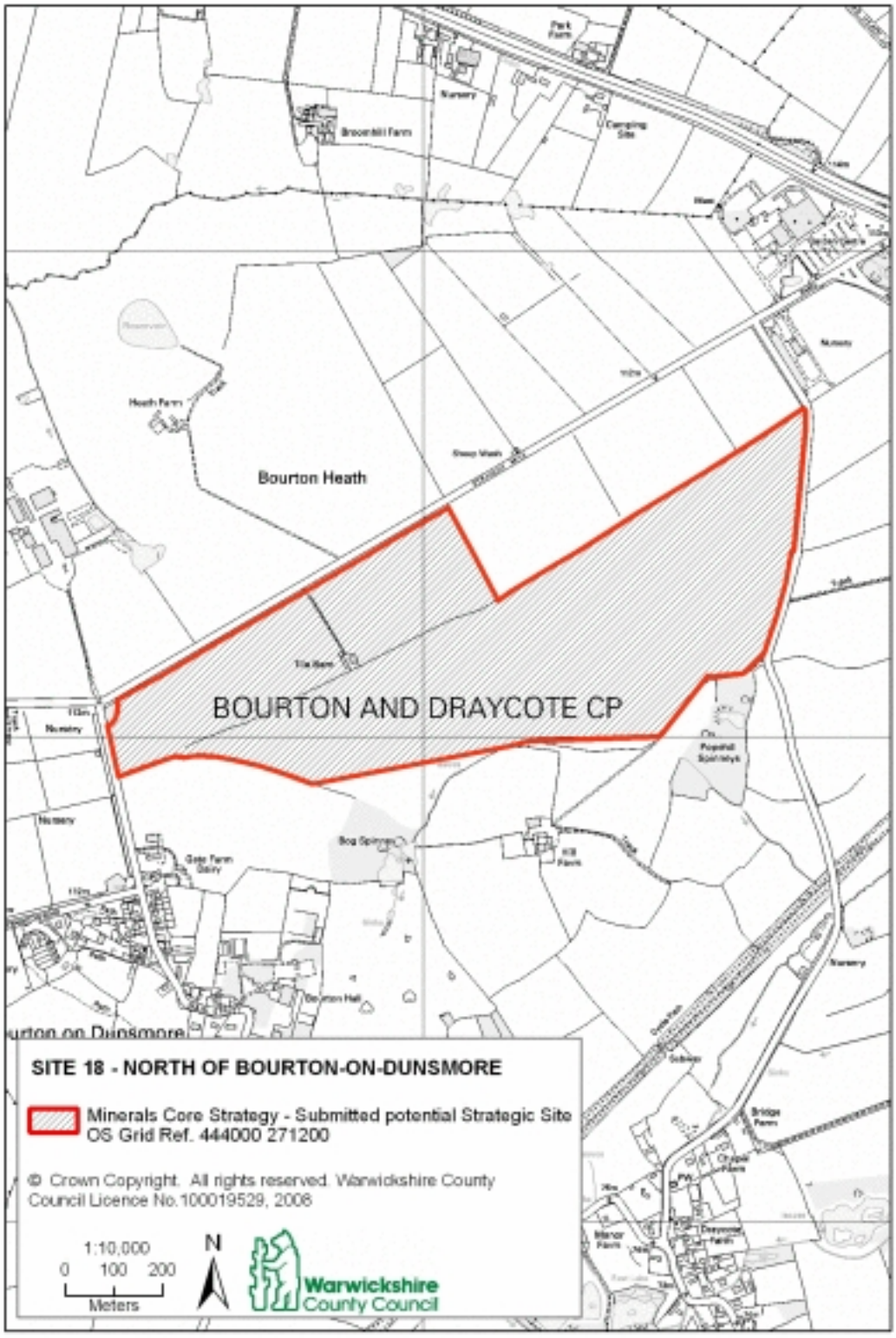
xxii For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	18
Groundwater Protection Zones	Outer zone
Estimated Impact on overall Hydrology of the area.	Nominal sitting on Blue Lias
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Nature conservation including wetland and marsh
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Some grade 3 or better in reduced areas using stripped soils
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes, the existing site has little to offer in habitat but a scheme to enhance the BAP objectives is easily achievable.
Can the site offer opportunities for schemes for flood risk management?	Nominal

Potential Minerals Sites for Consideration



Map 4.18 Site 18 - North of Bourton-on-Dunsmore

4

Potential Minerals Sites for Consideration

Site 19 - Church Farm

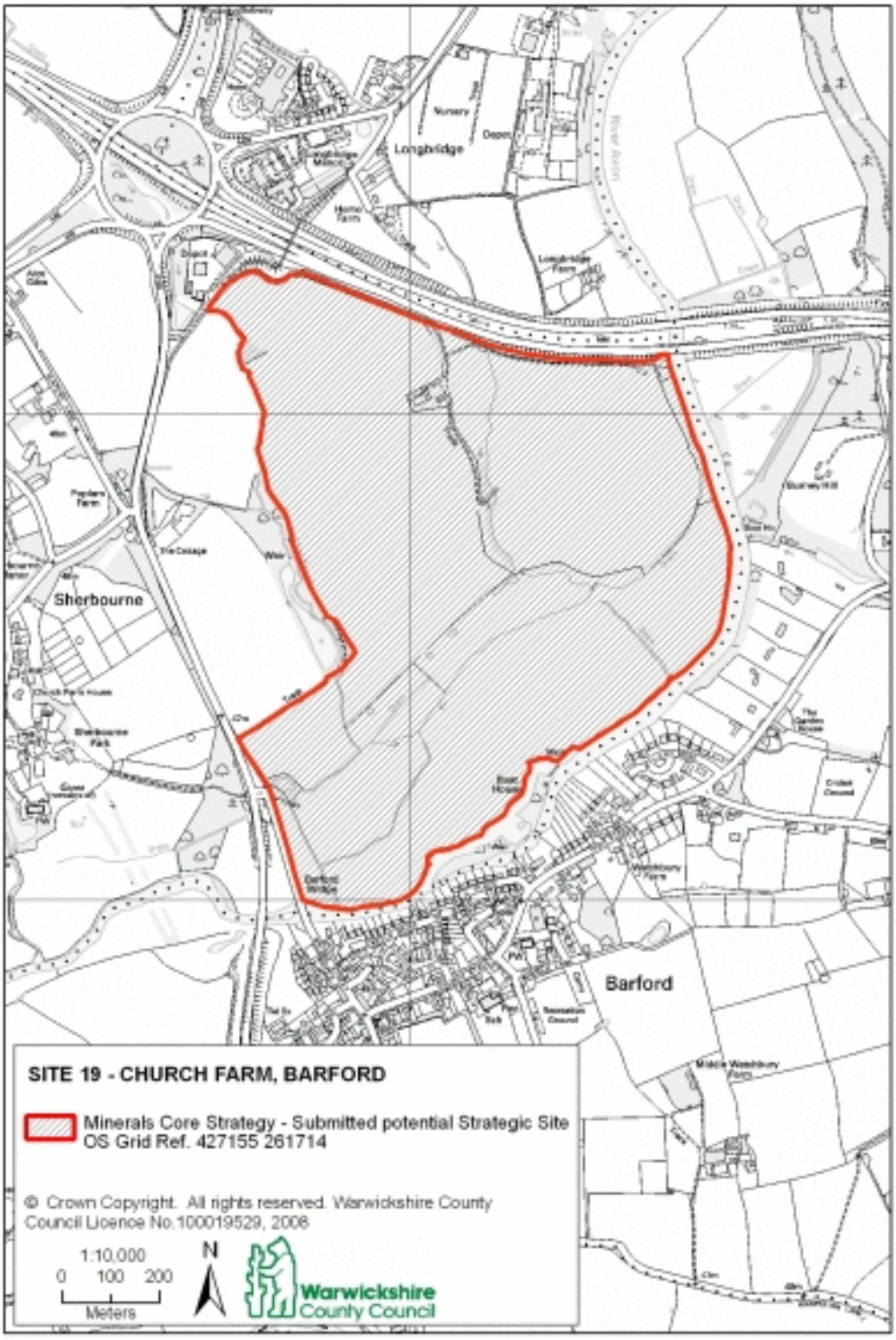
Site number	19
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land at Church Farm, Barford
Grid Reference	427055 261730
Parish	Sherbourne
Area (hectares)	82.84 hectares
Developer	-
Landowner	R Smith Ryland ESQ
Mode of Transport for Mineral	Road or River
Extension to existing works?*[1(xxiii)]	N/A
Site Plan Included	
Location of Site Access indicated	Marked Green
Route to Preferred Lorry Network*[2]	-
Settlements and Constraints*[3]	Barford, South of the site
Flood Zone Map	-
Location of processing plant	-
Ancillary Developments required?	-
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	N/A
Archaeological Features and historic buildings*[5]	Old Barn Cottage, marked purple
Local ecological and geological features*[6]	Lowland grazing marsh, Hatched Blue
Operational Details	
Geological Formation and details	River sand and gravel
End Uses of Mineral	Construction
Estimated Resource (tonnes)	2,000,000 approximately
Overburden Thickness and Details	-
Estimated Annual Output (tonnes)	-
Estimated Duration of Operations	-
Estimated Daily Vehicle Movements	-
Destination of mineral, market or further processing facility.	Warwickshire
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 1
Estimated Impact on local Ecology and Biodiversity	Minimal on agricultural land
Groundwater Protection Zones	No

xxiii For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	19
Estimated Impact on overall Hydrology of the area.	-
Restoration Options	
Please provided outline details of the restoration scheme including:	-
What are the proposed site after-uses?	-
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	-
Will the site require the importation of inert and other waste streams?	-
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	-
Can the site offer opportunities for schemes for flood risk management?	-

4 Potential Minerals Sites for Consideration



Map 4.19 Site 19 - Church Farm, Barford

Potential Minerals Sites for Consideration

Site 20 - South of Baginton

Site number	20
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land South of Baginton
Grid Reference	SP 345 745
Parish	Baginton
Area (hectares)	49.3ha.
Developer	-
Landowner	T Roberts
Mode of Transport for Mineral	Road
Extension to existing works?*[1(xxiv)]	No
Site Plan Included	
Location of Site Access indicated	Yes – see attached red line plan
Route to Preferred Lorry Network*[2]	Tollbar end junction of A45
Settlements and Constraints*[3]	Baginton village to the North
Flood Zone Map	Land east of River Sowe within EA Flood plain.
Location of processing plant	**-**
Ancillary Developments required?	Yes – processing/utilisation plant
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None
Archaeological Features and historic buildings*[5]	None
Local ecological and geological features*[6]	No known nationally important sites within site.
Operational Details	
Geological Formation and details	See attached bore hole logs.
End Uses of Mineral	-
Estimated Resource (tonnes)	In excess of 600,000
Overburden Thickness and Details	Not known at this stage
Estimated Annual Output (tonnes)	Not known at this stage
Estimated Duration of Operations	Not known at this stage
Estimated Daily Vehicle Movements	Not known at this stage
Destination of mineral, market or further processing facility.	Not known at this stage
Will extraction occur around or below the water table?	Believed to be above water table.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes. Believed to be grade 2 agricultural land
Estimated Impact on local Ecology and Biodiversity	Low
Groundwater Protection Zones	Not known at this stage

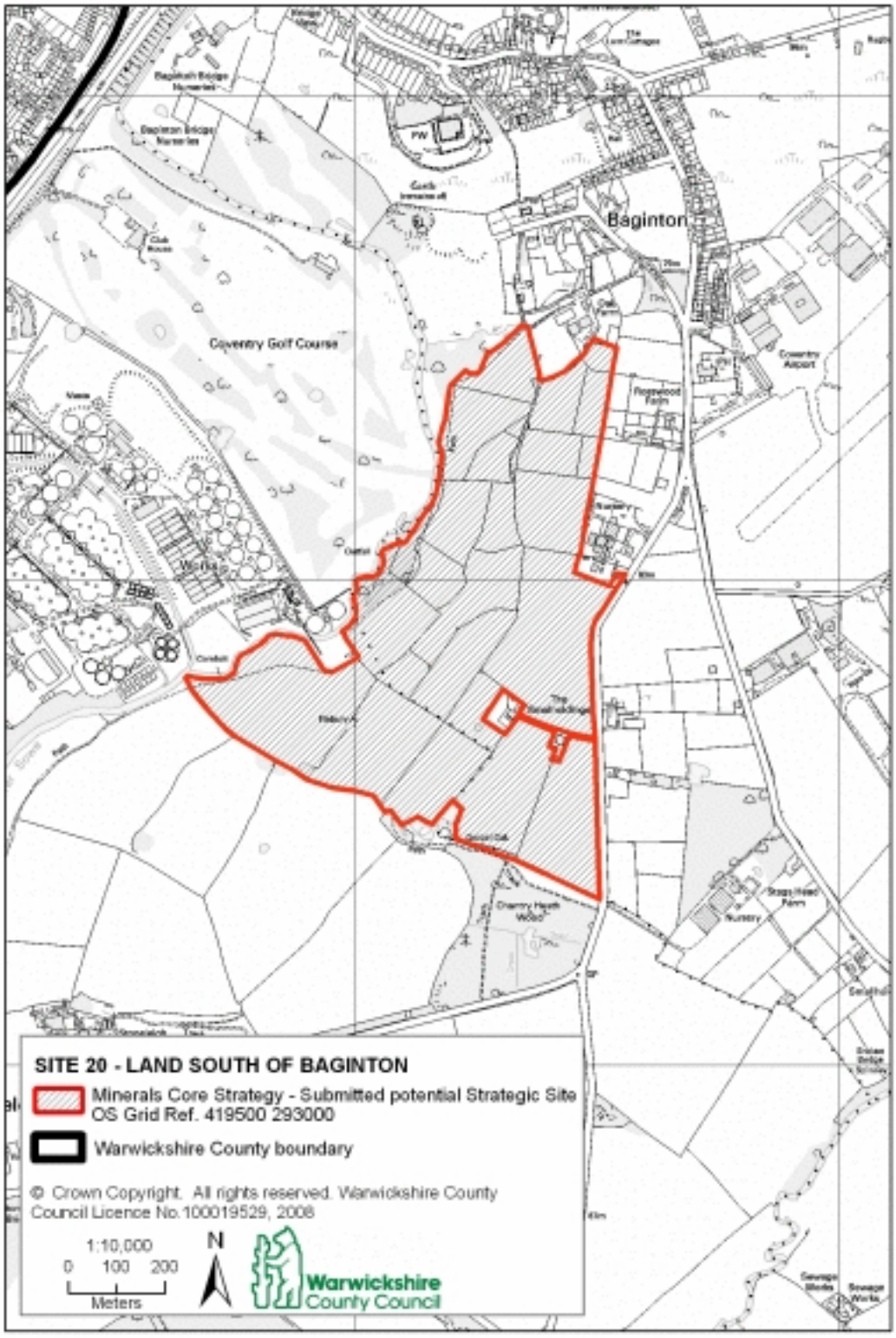
xxiv For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	20
Estimated Impact on overall Hydrology of the area.	Not known at this stage
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Residential use/contained agricultural use
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes. Top soil stored on site and re-deposited following minerals extraction (given depth of reserves)
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes – wildlife corridor and heritage trail can be created to west of site following course of River Sowe.
Can the site offer opportunities for schemes for flood risk management?	Yes – although due to topography potential flooding will be restricted to within approximately 100m distance of river.

Potential Minerals Sites for Consideration



Map 4.20 Site 20 - South of Baginton

4

Potential Minerals Sites for Consideration

Site 21 - Hams Lane, Lea Marston

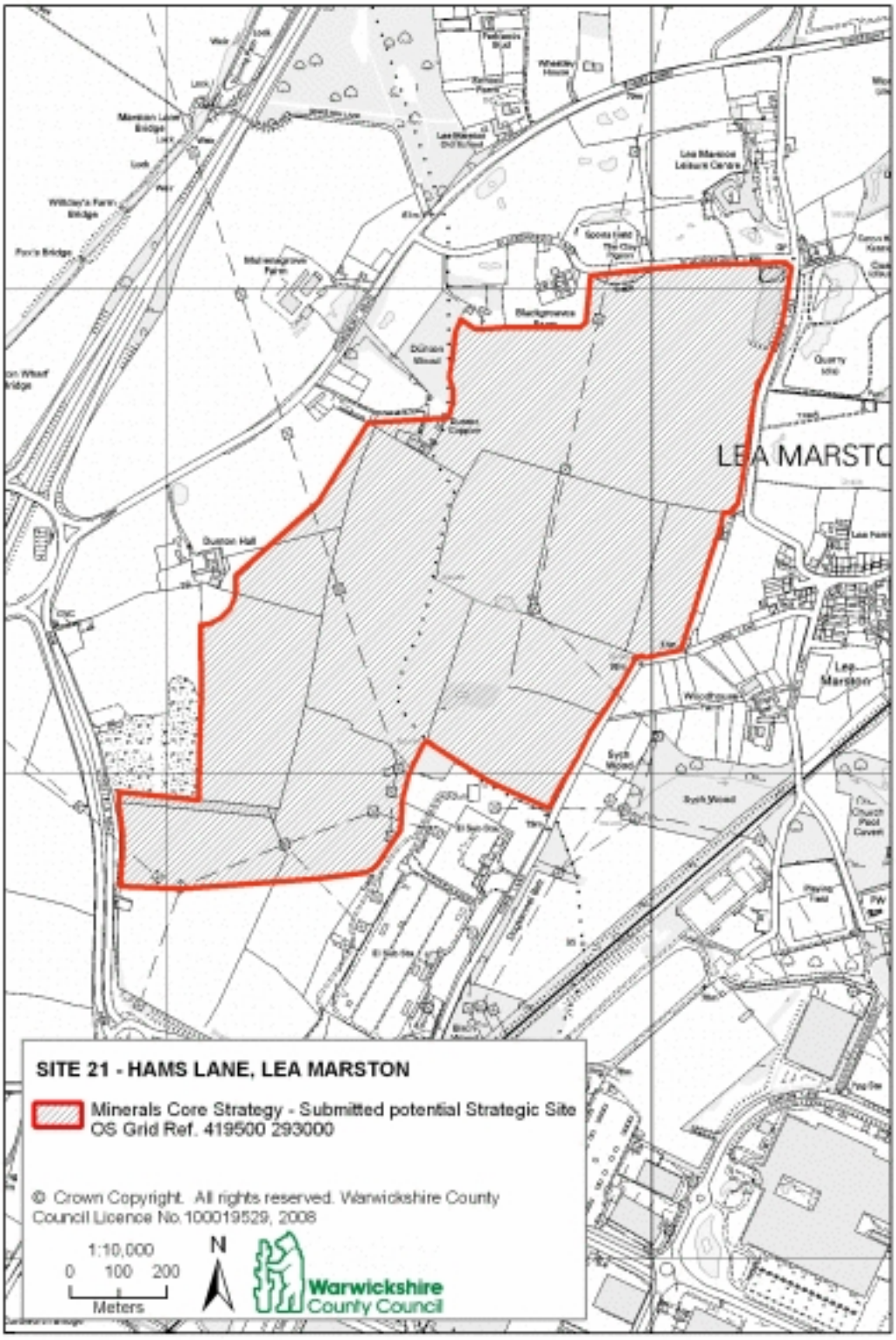
Site number	21
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Hams Lane, Lea Marston, Coleshill
Grid Reference	SP195930 (Full coordinates: 419500; 293000)
Parish	Unknown
Area (hectares)	93.1 hectares
Developer	Cemex Materials UK Limited
Landowner	Mrs Jones, Messrs Neachell and Breedon
Mode of Transport for Mineral	HGV
Extension to existing works?*[1(xxv)]	Site viewed as a replacement for Coleshill Quarry
Site Plan Included	
Location of Site Access indicated	SP1993_ CAW_ D_ 281008_A
Route to Preferred Lorry Network*[2]	Hams Lane to Faraday Avenue, or potentially via Dunton Island site onto A446.
Settlements and Constraints*[3]	Hams Lane links directly into PLR, or directly onto A446 via Dunton Island site.
Flood Zone Map	Not in flood zone
Location of processing plant	Yet to be determined
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None
Archaeological Features and historic buildings*[5]	None known
Local ecological and geological features*[6]	SNCIs at Dunton and Syoh Woods, and wetland south of Coton House Kennels
Operational Details	
Geological Formation and details	A combination of fluvialglacial (to the north) and the river terrace (to the east), separated by non-aggregate outcrop of Mercia Mudstone.
End Uses of Mineral	Construction aggregates and readymixed concrete.
Estimated Resource (tonnes)	Estimated 1.1 million tonnes saleable sand and gravel.
Overburden Thickness and Details	Estimated 1.5 metres; about 150,000 m3
Estimated Annual Output (tonnes)	120,000 tonnes
Estimated Duration of Operations	9 to 10 years plus five years aftercare
Estimated Daily Vehicle Movements	As existing from Ragley Quarry
Destination of mineral, market or further processing facility.	Construction sites in the north west Warwickshire market area and Birmingham.
Will extraction occur around or below the water table?	The site would involve two separate groundwater units separated by impermeable Mercia Mudstone. It is felt that the groundwater within the fluvialglacial deposit would only be encountered at depth, whilst that within the terrace material would be encountered much closer to the surface.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Grade 3/4
Estimated Impact on local Ecology and Biodiversity	Change from present to increase biodiversity to ecological advantage
Groundwater Protection Zones	Unknown

xxv For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	21
Estimated Impact on overall Hydrology of the area.	Temporary local interference only
Restoration Options	
Please provided outline details of the restoration scheme including:	A mixture of agriculture and open water, the latter designed to provide biodiversity benefits.
What are the proposed site after-uses?	
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	For that part of the site where it is thought that agricultural restoration would be achievable a return to the land's original grade should be possible.
Will the site require the importation of inert and other waste streams?	A limited volume of inert waste would be desirable to effect restoration. Any such facility would be a replacement for the company's Coleshill site.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	In a balanced mix of restored afteruses there will be great potential for improvement of habitat and creation of additional wetland biodiversity opportunities.
Can the site offer opportunities for schemes for flood risk management?	None.

4 Potential Minerals Sites for Consideration



Map 4.21 Site 21 - Hams Lane, Lea Marston

Potential Minerals Sites for Consideration

Site 22 - Wasperton

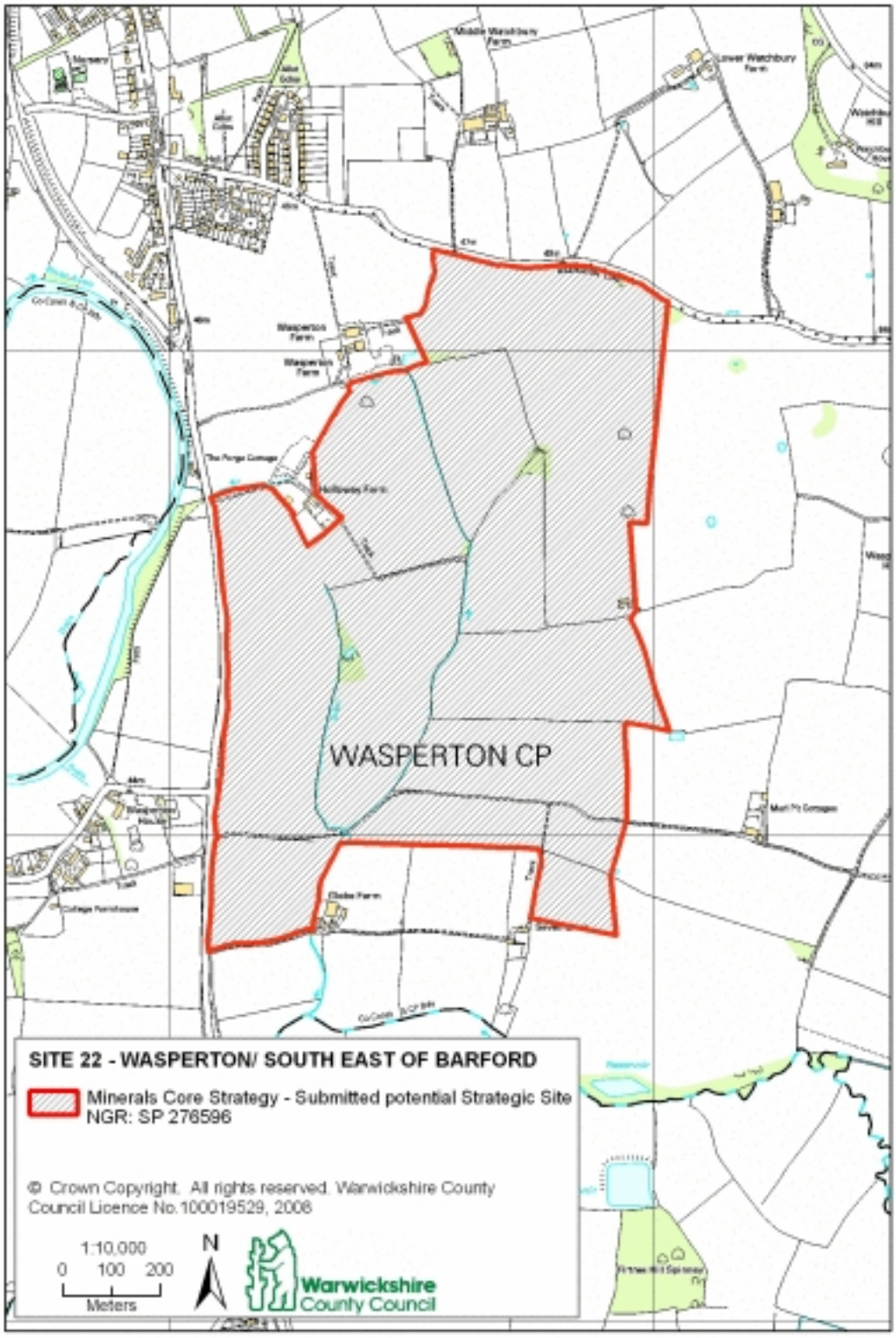
Site number	22
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Sand and Gravel
Address	Land east of the A429, south east of Barford
Grid Reference	SP 276 596
Parish	Barford, Sherbourne and Wasperton Joint
Area (hectares)	91 hectares
Developer	Hanson Quarry Products Europe Limited
Landowner	The President and Scholars of St John Baptist College in the University of Oxford.
Mode of Transport for Mineral	Road vehicles.
Extension to existing works?*[1(xxvi)]	Green field site.
Site Plan Included	
Location of Site Access indicated	Indicative access shown on site plan directly on the A429.
Route to Preferred Lorry Network*[2]	A429 – A46 – M40
Settlements and Constraints*[3]	Wasperton Village 250 metres west, Barford village 400 metres north west. Four dwellings requiring special consideration.
Flood Zone Map	The site is subject to marginal flooding from the Thelsford Brook on the southern extremity but otherwise does not flood.
Location of processing plant	Indicative location shown only.
Ancillary Developments required?	None.
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	None known.
Archaeological Features and historic buildings*[5]	None known but subject to detailed archaeological investigation.
Local ecological and geological features*[6]	None known
Operational Details	
Geological Formation and details	River Avon second terrace sand and gravels lying on top of the Mercia Mudstone Group.
End Uses of Mineral	Ready mixed concrete, concrete products, mortars and drainage.
Estimated Resource (tonnes)	C1.8 million tonnes, averaging 2.2 metres (2.0 – 3.6m) in thickness, allowing for contemporary buffer zones and mineral losses.
Overburden Thickness and Details	Overburden ranges from one to three metres, averaging 1.8 metres throughout the site consisting of top soil, subsoil and silty clays.
Estimated Annual Output (tonnes)	200,000 tonnes
Estimated Duration of Operations	7 -11 years for mineral extraction, plus 3 years to complete restoration.
Estimated Daily Vehicle Movements	Mineral extraction C40 vehicles (80 movements). Waste imports C30 vehicles (60 movements).
Destination of mineral, market or further processing facility.	On site processing for the markets of Stratford upon Avon, Warwick, Leamington Spa, Kenilworth and Coventry.
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Mainly grades 2 and 3a.

xxvi For key, see Site 27, page 163)

4 Potential Minerals Sites for Consideration

Site number	22
Estimated Impact on local Ecology and Biodiversity	The site is currently subject to intensive agricultural use and therefore impact on ecology and biodiversity will be minimal.
Groundwater Protection Zones	None known.
Estimated Impact on overall Hydrology of the area.	Unlikely but subject to detailed investigation.
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	The most likely site afteruse is agriculture although there is potential to improve the biodiversity of the area through the introduction of areas of nature conservation. The site is also suitable for the creation of flood alleviation capacity being adjacent to and mainly outside of the flood zone.
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	The site is mapped mainly as grades 2 and 3a and is therefore considered suitable for restoration to high grade agriculture.
Will the site require the importation of inert and other waste streams?	It would be proposed to restore the site using imported inert soils.
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contributuin to the Warwickshire Local Biodiveristy Action Plan (LBAPs)?	The site has the potential for a contribution to the Warwickshire Local Biodiversity Action Plan through the restoration of parts of the site to nature conservation, such as wildlife corridors and species habitats.
Can the site offer opportunities for schemes for flood risk management?	As an alternative or as a combination of the above restoration options, the site is ideally situated to provide flood storage capacity outside of the mapped flood zone.

Potential Minerals Sites for Consideration



Map 4.22 Site 22 - Wasperton

4 Potential Minerals Sites for Consideration

Site 23 - Atherston-on-Stour Airfield

Site 23 – Atherstone (on Stour) Airfield

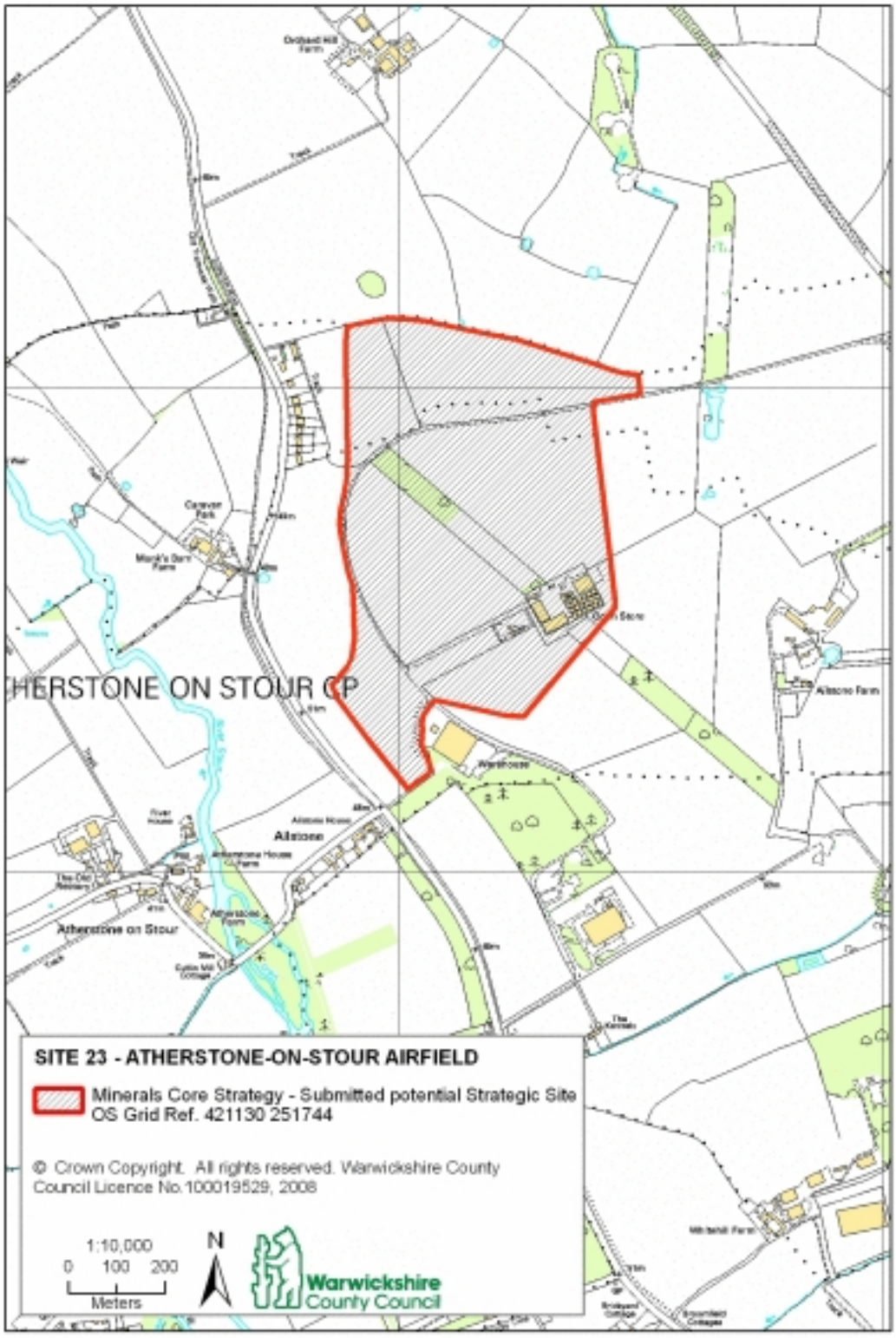
4.4 No pro forma was submitted for this site. It is allocated an Area of Search for Sand and Gravel in the Warwickshire County Council Minerals Local Plan (1995).

4.5 The area, amounts to 43 Hectares and allowing for appropriate buffer zones and sterilised areas, and contains circa 500,000 tonnes of sand and gravel suitable for use in the manufacture of concrete. Given the limited size of the reserve it would be proposed to backhaul the mineral to Bubbenhall quarry for processing. Output is likely to be up to 150,000 tonnes per annum giving circa 30 vehicle movements a day. *

Restoration of the site is, at present, envisaged to low level agriculture although the prospect may be considered for landfill. Either option would be achievable but highly influenced by market demand.

* *This information was provided by agents for the owner of the site.*

Potential Minerals Sites for Consideration



Map 4.23 Site 23 - Atherston-on-Stour Airfield

4

Potential Minerals Sites for Consideration

Site 24 - Kingsbury Brickworks, Dosthill

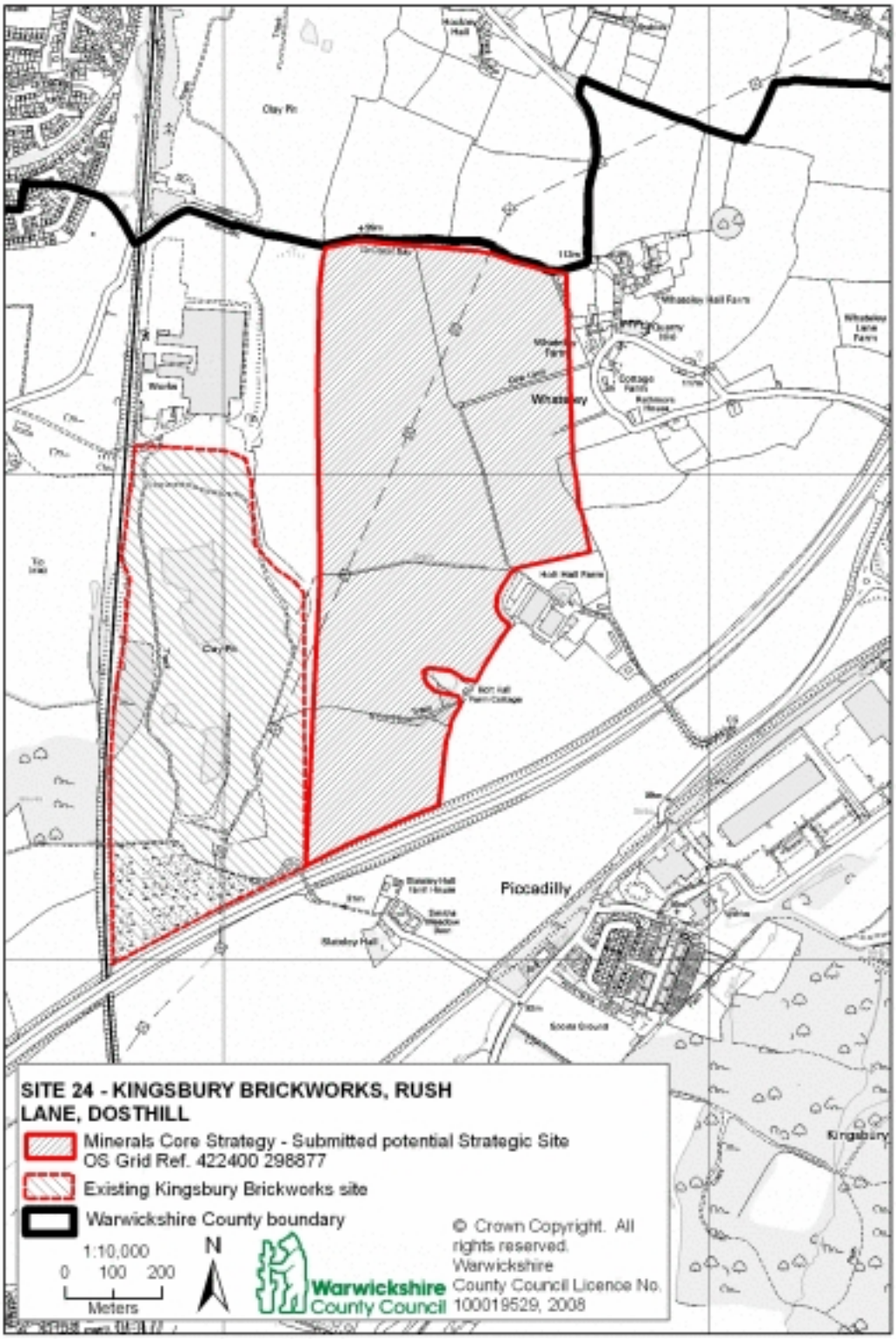
Site number	24
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Brick clay, Marl
Address	Wienerberger Ltd, Rush Lane, Dosthill, Nr Tamworth, B77 1LT
Grid Reference	422149/298878/95.9
Parish	Kingsbury
Area (hectares)	81
Developer	Wienerberger Ltd
Landowner	Unknown
Mode of Transport for Mineral	Internal Dump Trucks
Extension to existing works?*[1(xxvii)]	Yes
Site Plan Included	
Location of Site Access indicated	Yellow
Route to Preferred Lorry Network*[2]	No lorry's all internal
Settlements and Constraints*[3]	Green
Flood Zone Map	
Location of processing plant	Blue
Ancillary Developments required?	No
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	SSSI = Brown Rigs = Purple
Archaeological Features and historic buildings*[5]	N/A
Local ecological and geological features*[6]	See above
Operational Details	
Geological Formation and details	Sandstone/Etruria Marl
End Uses of Mineral	Brick products
Estimated Resource (tonnes)	
Overburden Thickness and Details	
Estimated Annual Output (tonnes)	Used on site 150,000 m3
Estimated Duration of Operations	
Estimated Daily Vehicle Movements	N/A
Destination of mineral, market or further processing facility.	Site
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No
Estimated Impact on local Ecology and Biodiversity	Minimal

xxvii For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number	24
Groundwater Protection Zones	
Estimated Impact on overall Hydrology of the area.	N/A
Restoration Options	
Please provided outline details of the restoration scheme including:	Landfill
What are the proposed site after-uses?	
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Yes
Will the site require the importation of inert and other waste streams?	Yes
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes
Can the site offer opportunities for schemes for flood risk management?	No

4 Potential Minerals Sites for Consideration



Map 4.24 Site 24 - Kingsbury Brickworks, Rush Lane, Dosthill

Potential Minerals Sites for Consideration

Site 25 - Anker West, Shuttington

Site number	25
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Coal
Address	Anker West, Shuttington
Grid Reference	424851, 305961
Parish	Shuttington
Area (hectares)	147.7ha
Developer	UK Coal Mining Ltd
Landowner	Part UK Coal and Working Rights Agreement
Mode of Transport for Mineral	Road
Extension to existing works?*[1](xxviii)	No
Site Plan Included	
Location of Site Access indicated	North of site direct onto B5493
Route to Preferred Lorry Network*[2]	Along B5493 to M42, J11
Settlements and Constraints*[3]	Village of Shuttington adjacent
Flood Zone Map	Within flood zone 3
Location of processing plant	Mobile plant at working face
Ancillary Developments required?	None
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Alvecote pools SSSI to the south
Archaeological Features and historic buildings*[5]	Motte and Bailey Castle 1.2km to NE Alvecote Priory and Dovecote 800m to S
Local ecological and geological features*[6]	
Operational Details	
Geological Formation and details	
End Uses of Mineral	Coal for energy industry
Estimated Resource (tonnes)	Up to 2 million tonnes
Overburden Thickness and Details	
Estimated Annual Output (tonnes)	Approx 300,000 tonnes
Estimated Duration of Operations	Up to 5 years
Estimated Daily Vehicle Movements	
Destination of mineral, market or further processing facility.	Midland power stations
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Yes some grade 2/3
Estimated Impact on local Ecology and Biodiversity	Some initial impact long term benefits upon restoration
Groundwater Protection Zones	Outside GPZ

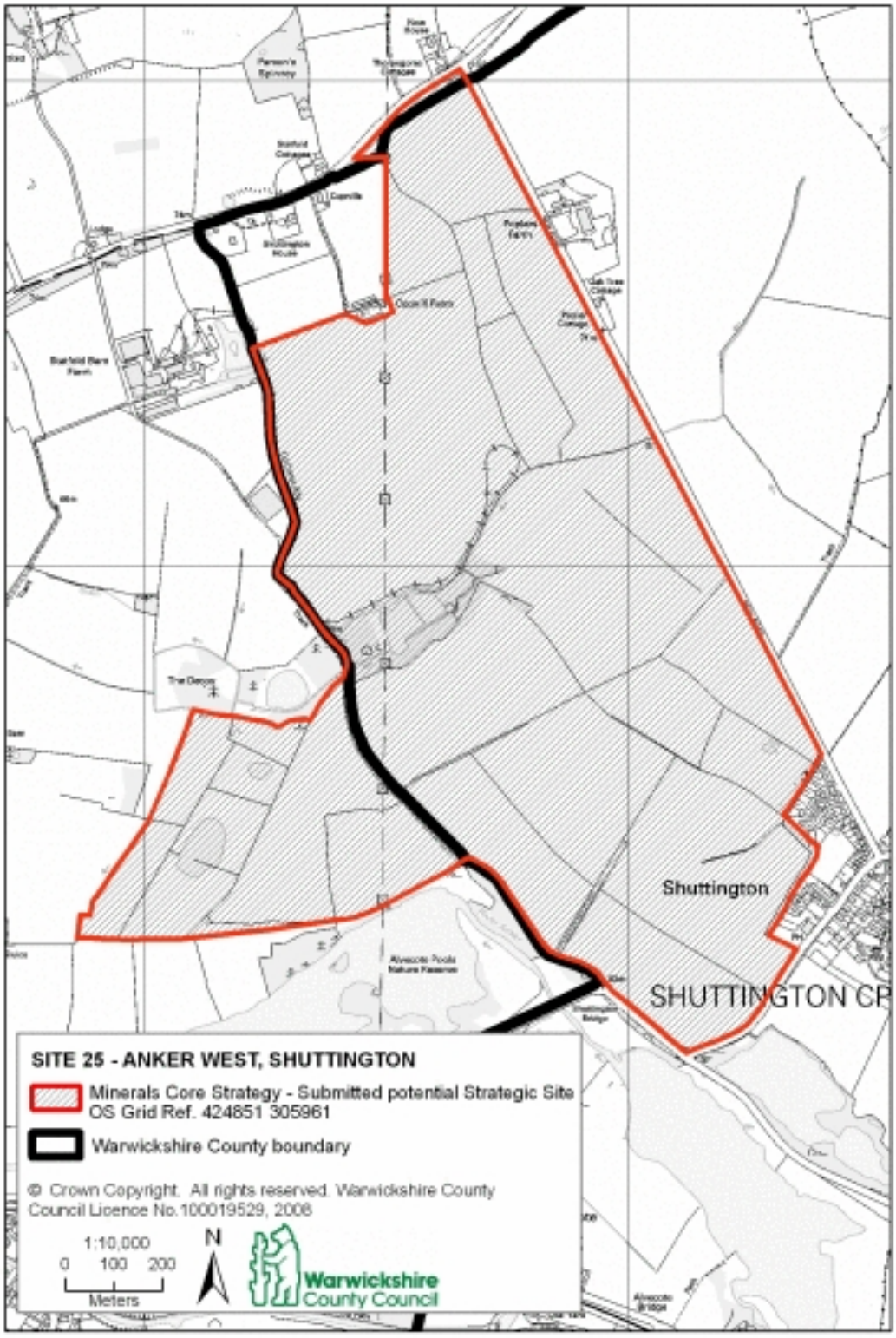
xxviii For key, see Site 27, page 163)

4

Potential Minerals Sites for Consideration

Site number	25
Estimated Impact on overall Hydrology of the area.	
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Mix of agriculture and nature conservation improvements
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Original
Will the site require the importation of inert and other waste streams?	None
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes – woodland and hedgerow planting
Can the site offer opportunities for schemes for flood risk management?	

Potential Minerals Sites for Consideration



Map 4.25 Site 25 - Anker West, Shuttington

4

Potential Minerals Sites for Consideration

Site 26 - Spiers Farm

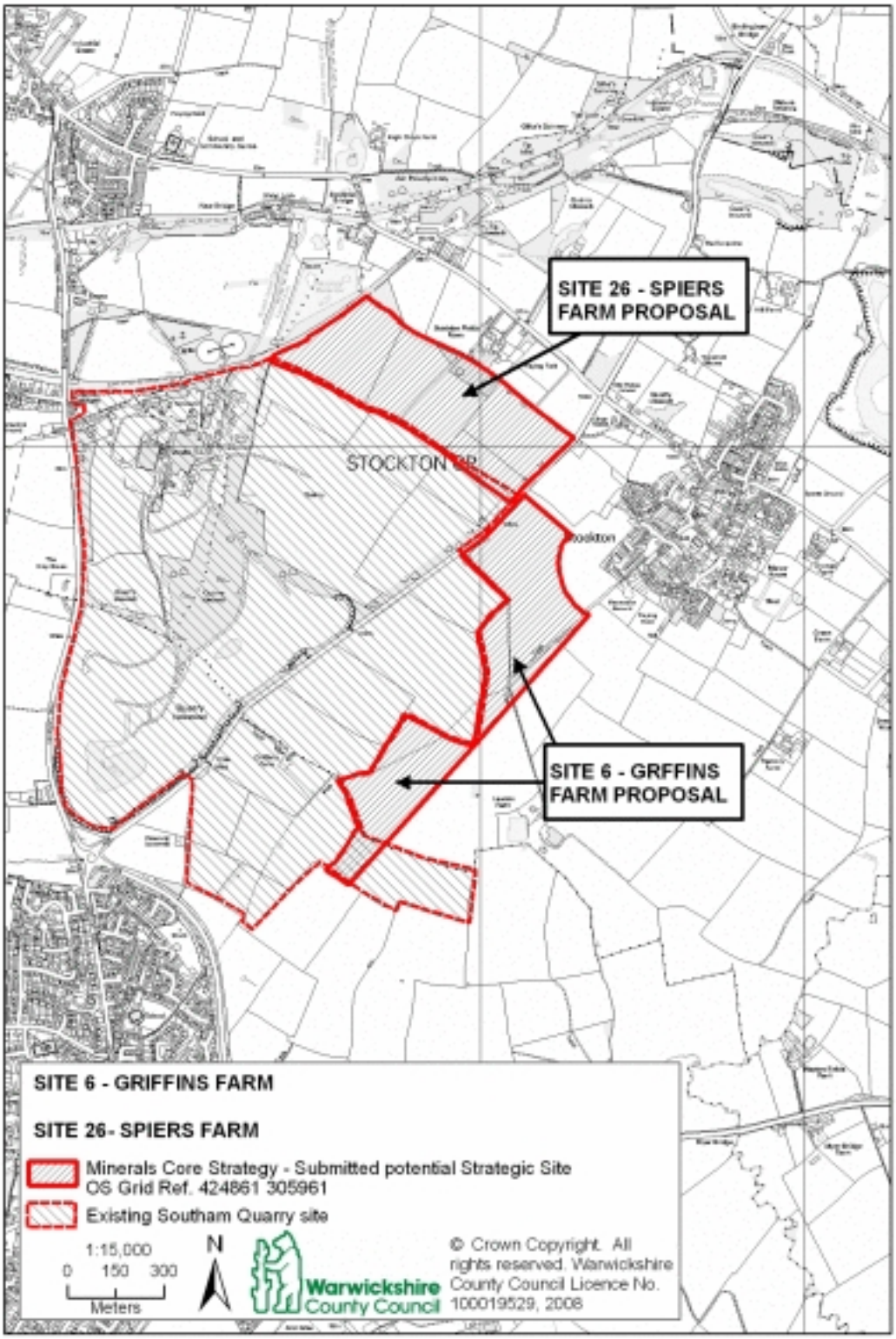
Site number:	26
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Clay/Limestone Lias
Address	Land north of Spiers Farm Southam
Grid Reference	430640
Parish	Stockton/Southam
Area (hectares)	Approx 20
Developer	CEMEX UK Cement
Landowner	CEMEX UK Cement
Mode of Transport for Mineral	HGV – Road
Extension to existing works?*[1(xxix)]	Yes – Southam Quarry
Site Plan Included	
Location of Site Access indicated	Yes
Route to Preferred Lorry Network*[2]	Existing access to A423
Settlements and Constraints*[3]	Stockton
Flood Zone Map	N/A
Location of processing plant	Southam and Rugby
Ancillary Developments required?	NONE
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	Geological RIGS/SSSI
Archaeological Features and historic buildings*[5]	NONE – (see Spiers Farm EA)
Local ecological and geological features*[6]	Local SINC
Operational Details	
Geological Formation and details	Clay/Limestone LIAS
End Uses of Mineral	Cement
Estimated Resource (tonnes)	Approx 6m tonnes (gross)
Overburden Thickness and Details	Approx 1m
Estimated Annual Output (tonnes)	5/600,000 tonnes
Estimated Duration of Operations	5/6 years
Estimated Daily Vehicle Movements	Same as Spiers Farm
Destination of mineral, market or further processing facility.	Rugby/Midland Conurbations
Will extraction occur around or below the water table?	Yes
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	No
Estimated Impact on local Ecology and Biodiversity	Will improve these
Groundwater Protection Zones	Manageable/Spiers

xxix For key, see Site 27, page 163)

Potential Minerals Sites for Consideration

Site number:	26
Estimated Impact on overall Hydrology of the area.	Manageable/Spiers
Restoration Options	
Please provided outline details of the restoration scheme including:	Extension of Spiers Farm permitted scheme
What are the proposed site after-uses?	Extension of Spiers Lake/Recreational/Ecological
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	Grade 3b agricultural land can be restored in part.
Will the site require the importation of inert and other waste streams?	No
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes Yes
Can the site offer opportunities for schemes for flood risk management?	N/A

4 Potential Minerals Sites for Consideration



Map 4.26 Site 26 - Spiers Farm

Potential Minerals Sites for Consideration

Site 27 - West of Dry Hill Quarry, Hornton

Site number	27
Mineral Type(s) (sand and gravel, crushed rock, brick clay, coal etc)	Limestone for Building Stone and Aggregate
Address	West of Dry Hill Quarry, Hornton Grounds, (east of A422) Warwickshire, OX15 6HH
Grid Reference	SP37737, 45366
Parish	Ratley and Upton
Area (hectares)	14.37 ha.
Developer	Peter Bennie Ltd./Hornton Quarries
Landowner	Thorne family surface owner (Mineral rights Corus)
Mode of Transport for Mineral	Road System
Extension to existing works?*[1(xxx)]	Lies adjacent to existing quarry site in Oxfordshire. The existing haul road could be extended, and the present working area (wheelwash, weighbridge, loading, conservation stone cutting) could be utilised.
Site Plan Included	**GPP/PBL/TM/08/02a**
Location of Site Access indicated	via existing haul road (extended)
Route to Preferred Lorry Network*[2]	A422 is accessed directly
Settlements and Constraints*[3]	Please see attached statement[(xxxi)]
Flood Zone Map	Flood zone is due west, 4km
Location of processing plant	Existing facilities at Hornton Grounds and Edge Hill
Ancillary Developments required?	Please see attached statement
National and regional designations – (AONB, SSSI, SAC, RIGS etc)*[4]	RIGS, AONB nearby
Archaeological Features and historic buildings*[5]	Close to Upton House, Grade II*, and associated grounds and features. The landscape may contain identified or non identified traces of earlier settlement etc.
Local ecological and geological features*[6]	RIGS as revealed face of stone in old quarry to east of site. The site is also of wildlife importance. Please see attached statement.
Operational Details	
Geological Formation and details	Lower Jurassic, Middle Lias and Maristone Rock Bed. The stone in this site is a ferruginous sandy oolitic limestone, and can be golden-brown or bluish in colour.
End Uses of Mineral	Building stone and aggregate.
Estimated Resource (tonnes)	200,000 tonnes
Overburden Thickness and Details	Estimated 1-2 metres
Estimated Annual Output (tonnes)	Dependent upon demand
Estimated Duration of Operations	Not known
Estimated Daily Vehicle Movements	Not known
Destination of mineral, market or further processing facility.	
Will extraction occur around or below the water table?	Relatively shallow extraction likely, approx. 4-6m.
Environmental Information	
Does the site effect Agricultural Grades 1,2 and 3a – "best and most versatile"?	Provisional Grade 2, but would need site analysis.

xxx For Key, see page 163
xxxi Attached statement available at www.warwickshire.gov.uk/mineralscorestrategy

4

Potential Minerals Sites for Consideration

Site number	27
Estimated Impact on local Ecology and Biodiversity	Please see attached statement.
Groundwater Protection Zones	Zone 2
Estimated Impact on overall Hydrology of the area.	Please see attached statement.
Restoration Options	
Please provided outline details of the restoration scheme including:	
What are the proposed site after-uses?	Agriculture/woodland
If Agricultural Grade 1,2, 3a and 3b is affected, can it be restored to its original or enhanced state?	
Will the site require the importation of inert and other waste streams?	Existing quarry adjacent may require material imported for restoration
Will the site offer opportunities for biodiversity and habitat enhancement? Can it make a contribution to the Warwickshire Local Biodiversity Action Plan (LBAPs)?	Yes: please see statement
Can the site offer opportunities for schemes for flood risk management?	Please see statement – no obvious role.

*[1] Extension refers to development which would be 'contiguous with an existing, dormant or unrestored site"

*[2] Warwickshire Advisory Lorry Route Map (2005), produced by the County Council.

*[3] The location of urban areas, settlements and residential and other land uses.

*[4] Sites designated International, National, Regional, and Local Importance –

Special Areas of Conservation (SAC)

Sites of Special Scientific Interests (SSSI)

Scheduled Ancient Monuments

Historic Parks and Gardens

National Trust Properties

Conservation Areas

Areas of Outstanding Natural Beauty

Special Landscape Areas

Listed Buildings

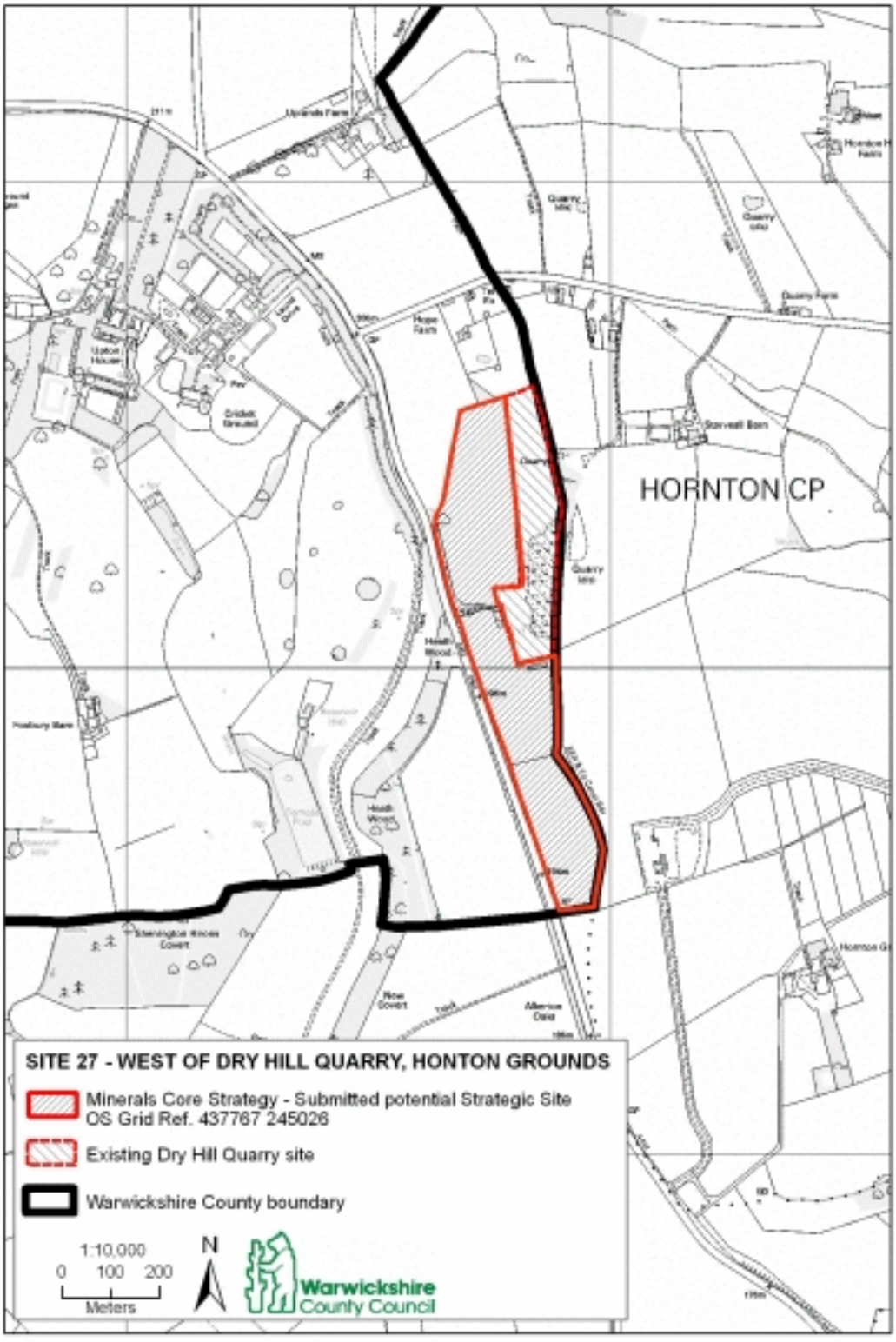
Sites of Importance of Nature Conservation

Potential Minerals Sites for Consideration

*[5] Archaeological Sites include those recorded on the Warwickshire Sites and Monuments Record

*[6] Regional Important Geological Sites (RIGS) and areas identified as being important ecological sites, such as Sites of Interest tot Nature Conservation (SINCs).

4 Potential Minerals Sites for Consideration



Map 4.27 Site 27 - West of Dry Hill Quarry, Hornton Grounds

5 Submitted Strategic Sites Comment Form

POTENTIAL STRATEGIC SITES FOR CONSIDERATION

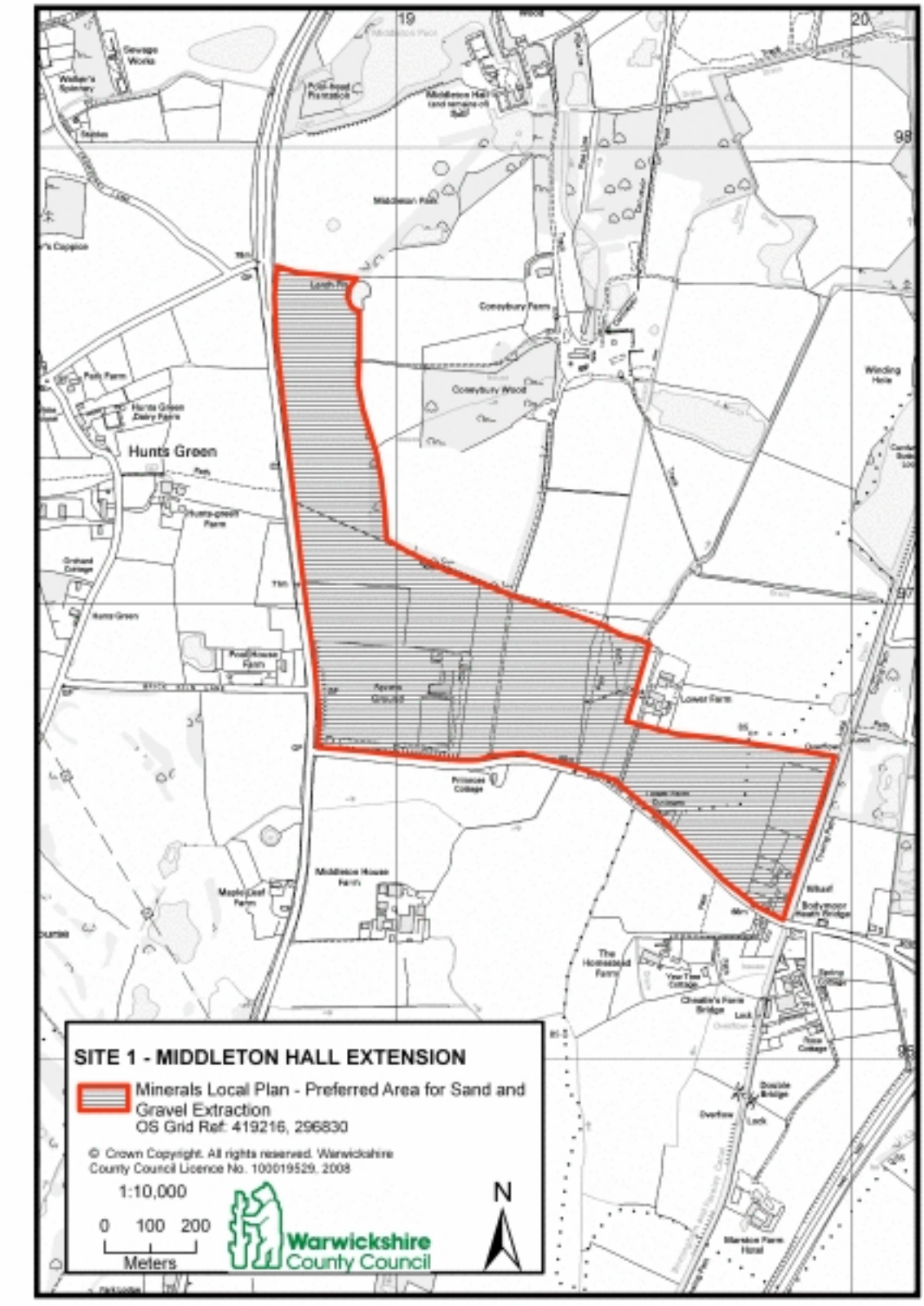
Question

37. **Have you any comments in respect of the new strategic sites which have been put forward for possible inclusion in the Minerals Core Strategy?**

6

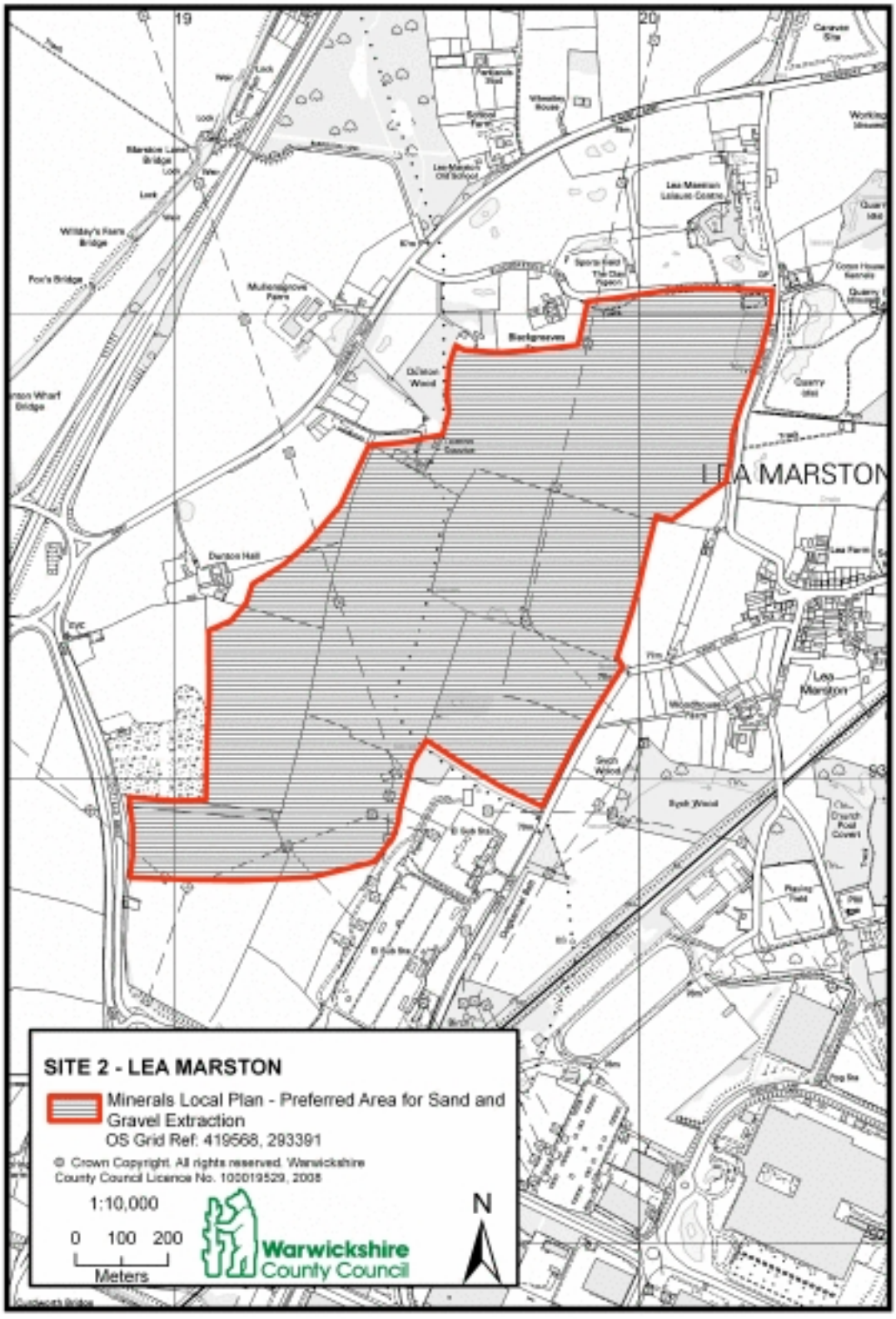
Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel

6 Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.1 Middleton Hall Extension

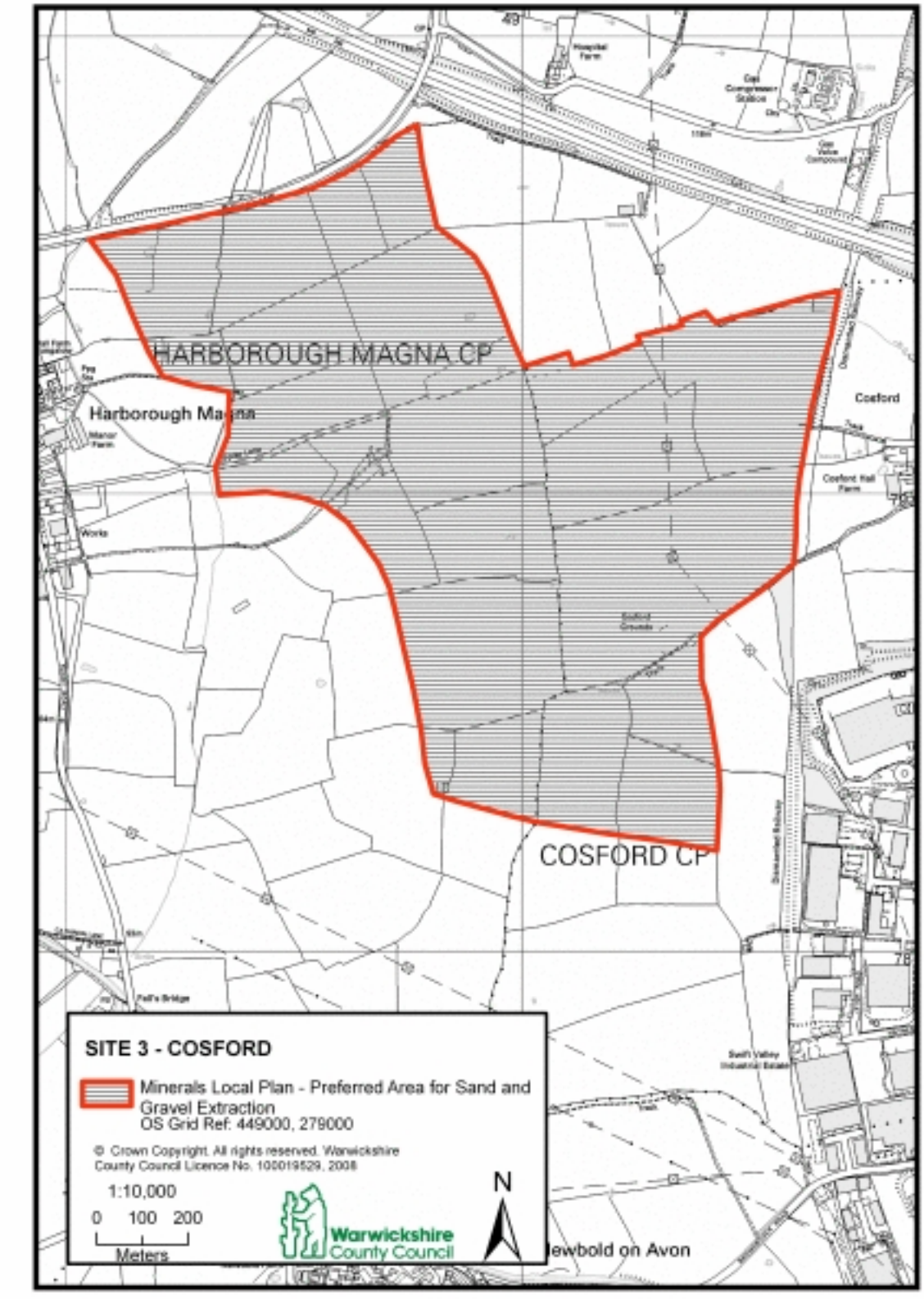
Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.2 Lea Marston

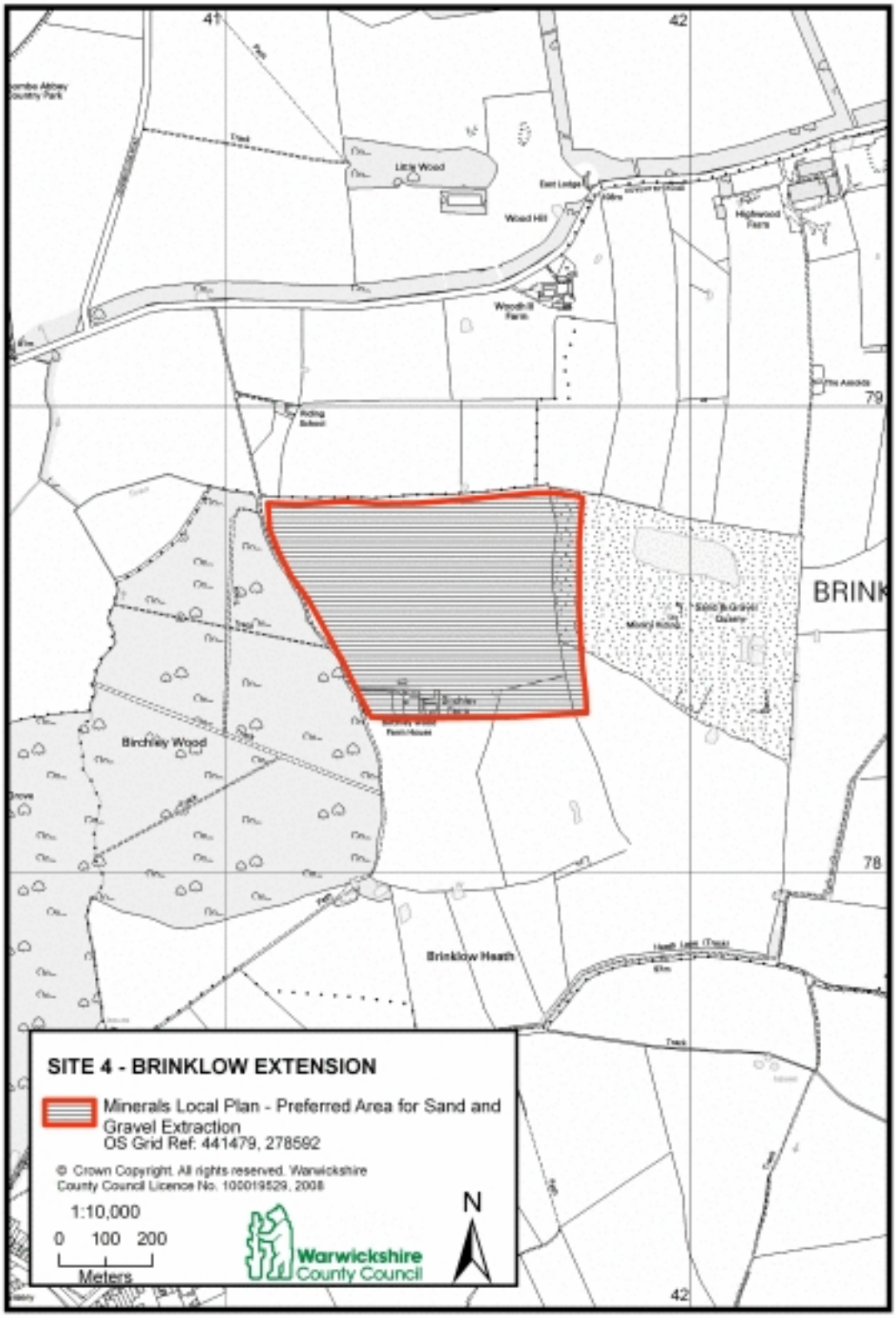
6

Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.3 Cosford

Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.4 Brinklow Extension

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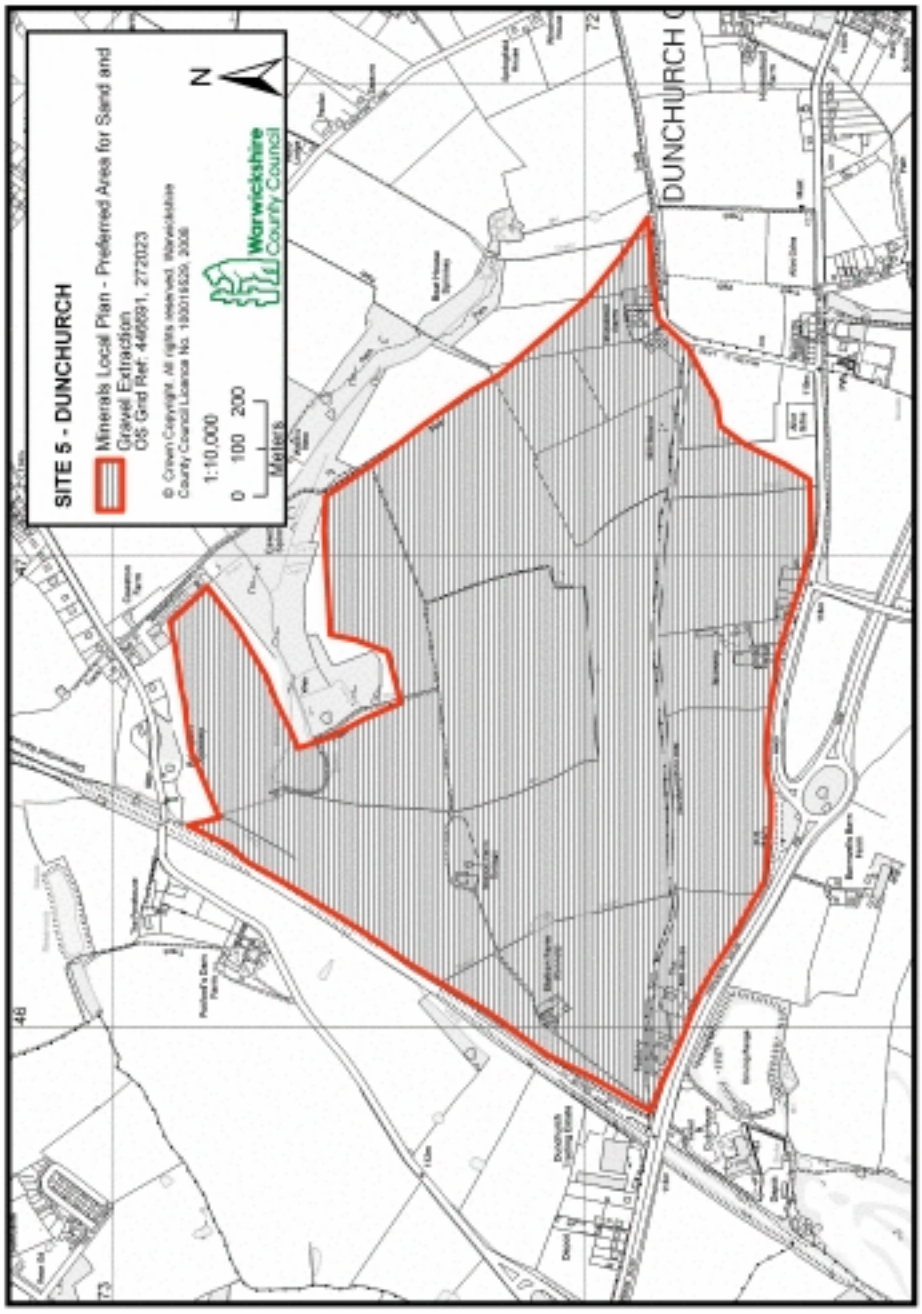
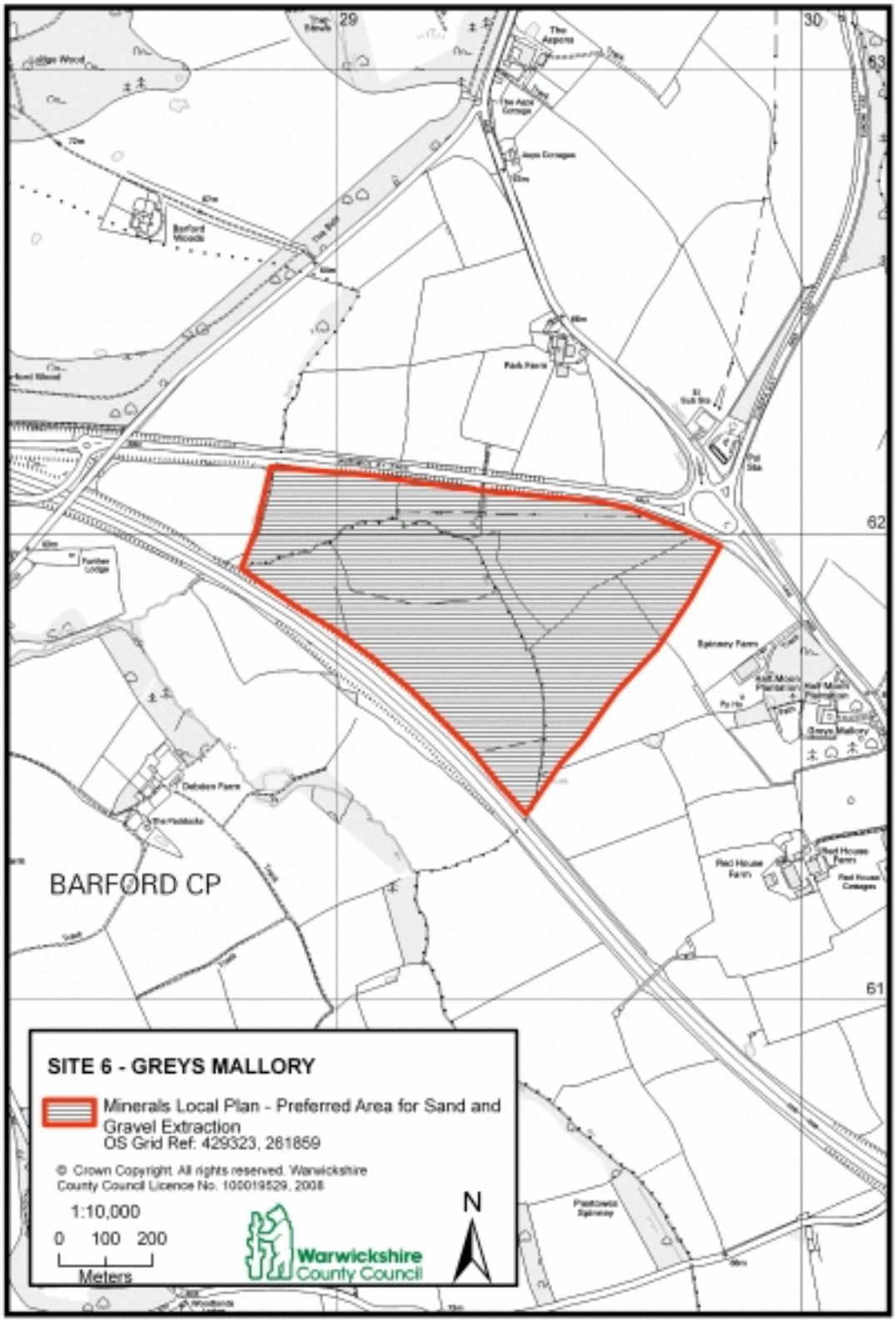
Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Picture 6.1 Dunchruch

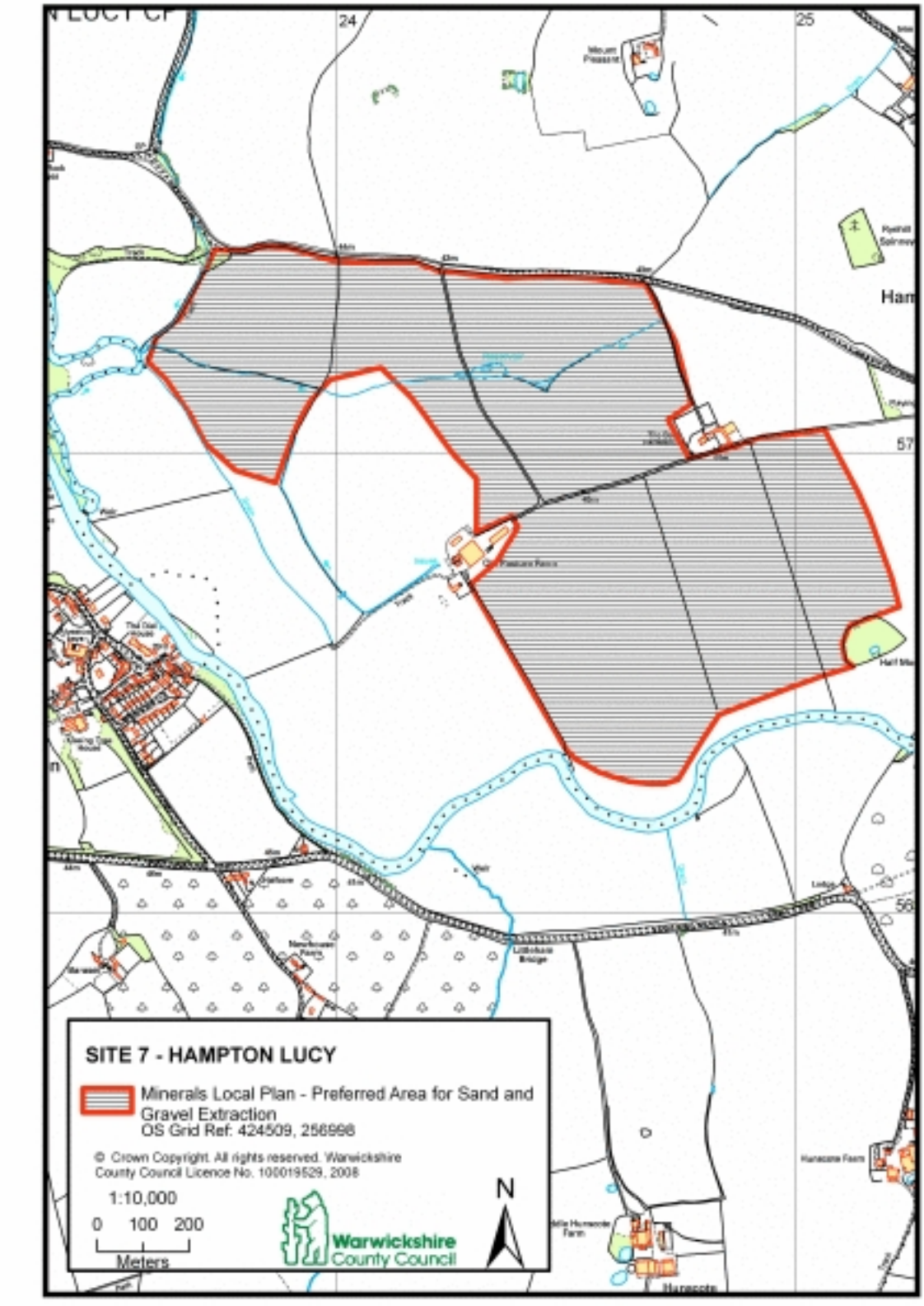
Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.5 Greys Mallory

6

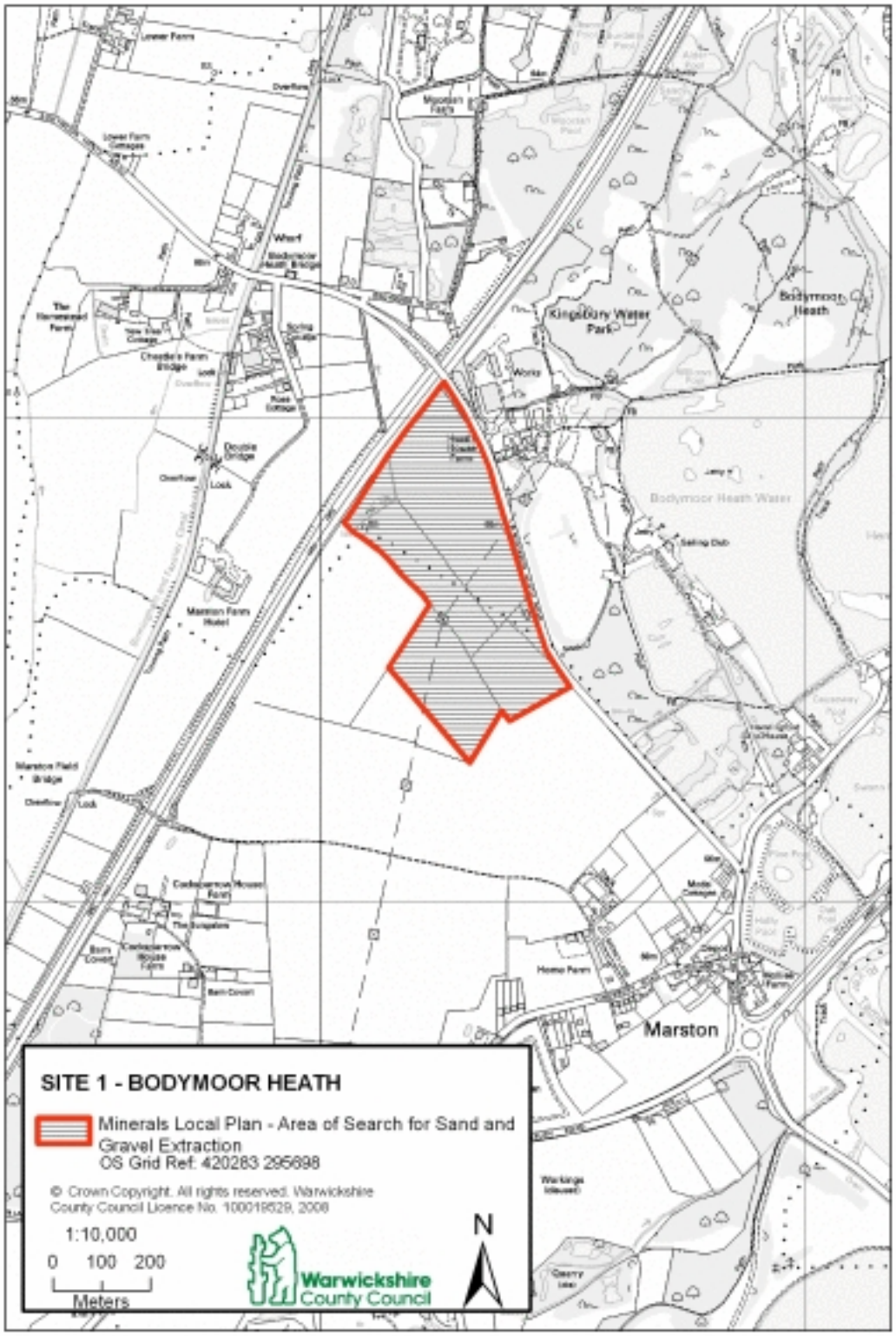
Minerals Local Plan (1995) - Preferred Areas of Sand and Gravel



Map 6.6 Hampton Lucy

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel

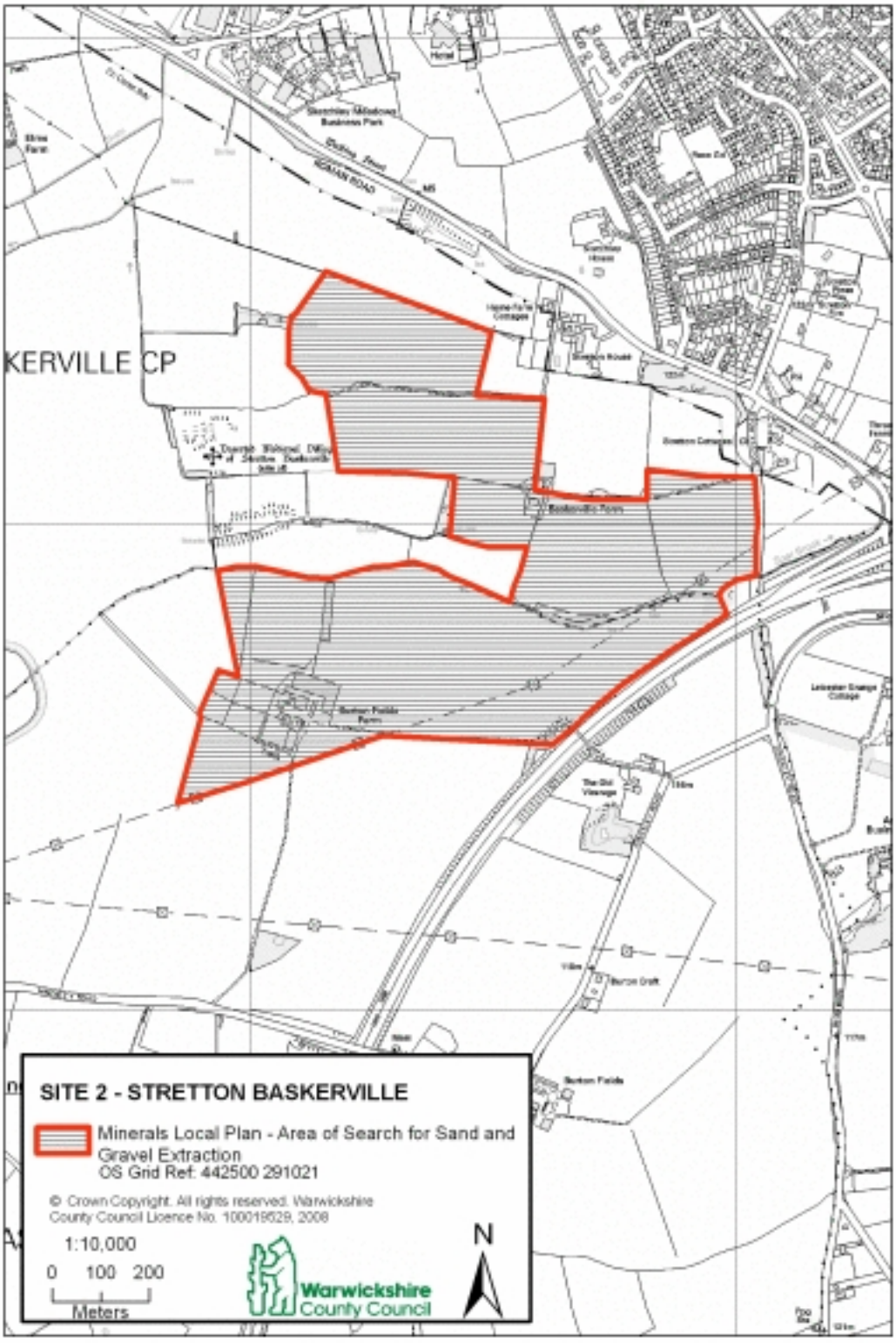
7 Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.1 Area of Search Site 1 - Bodymoor Heath

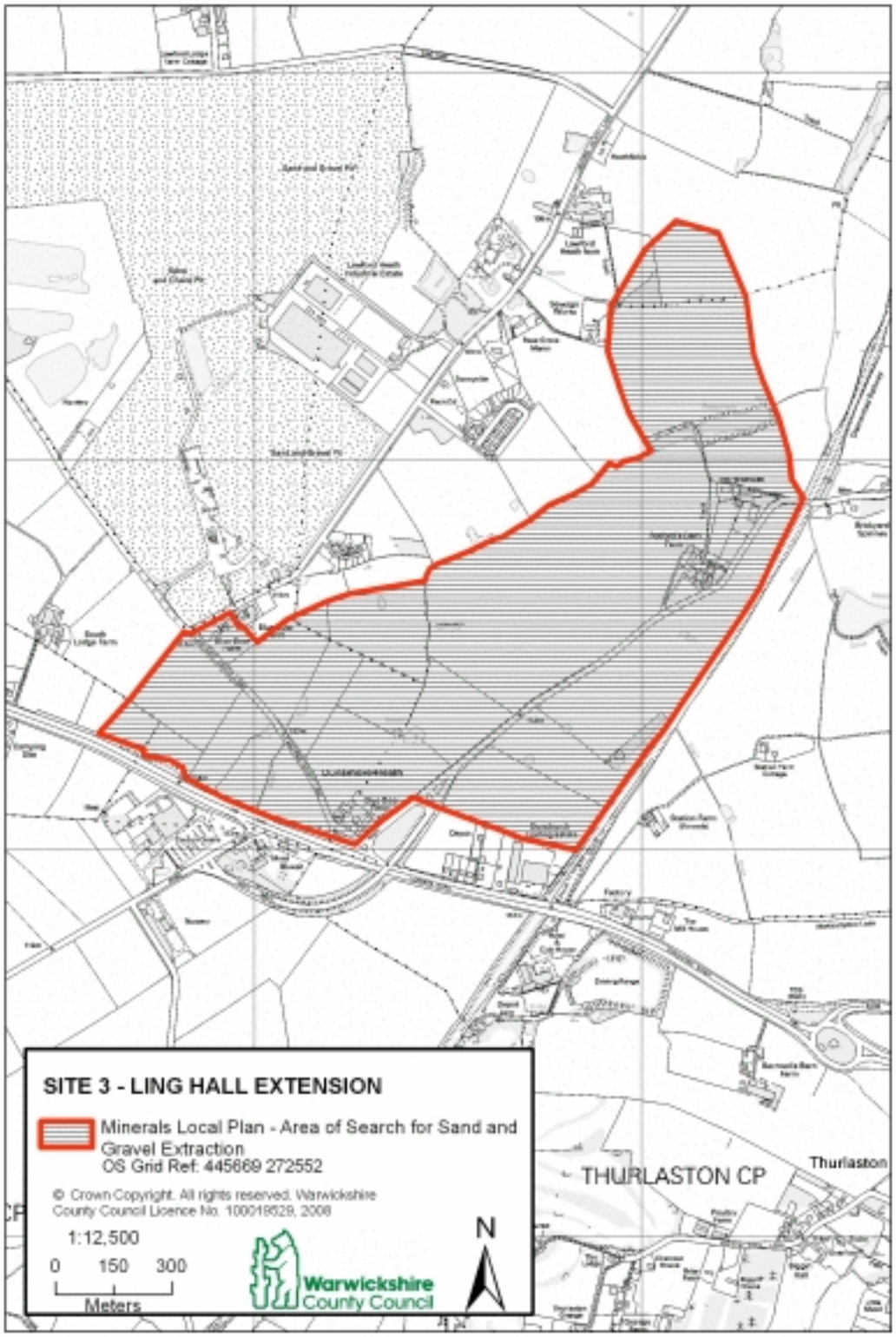
7

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.2 Area of Search Site 2 - Stretton Baskerville

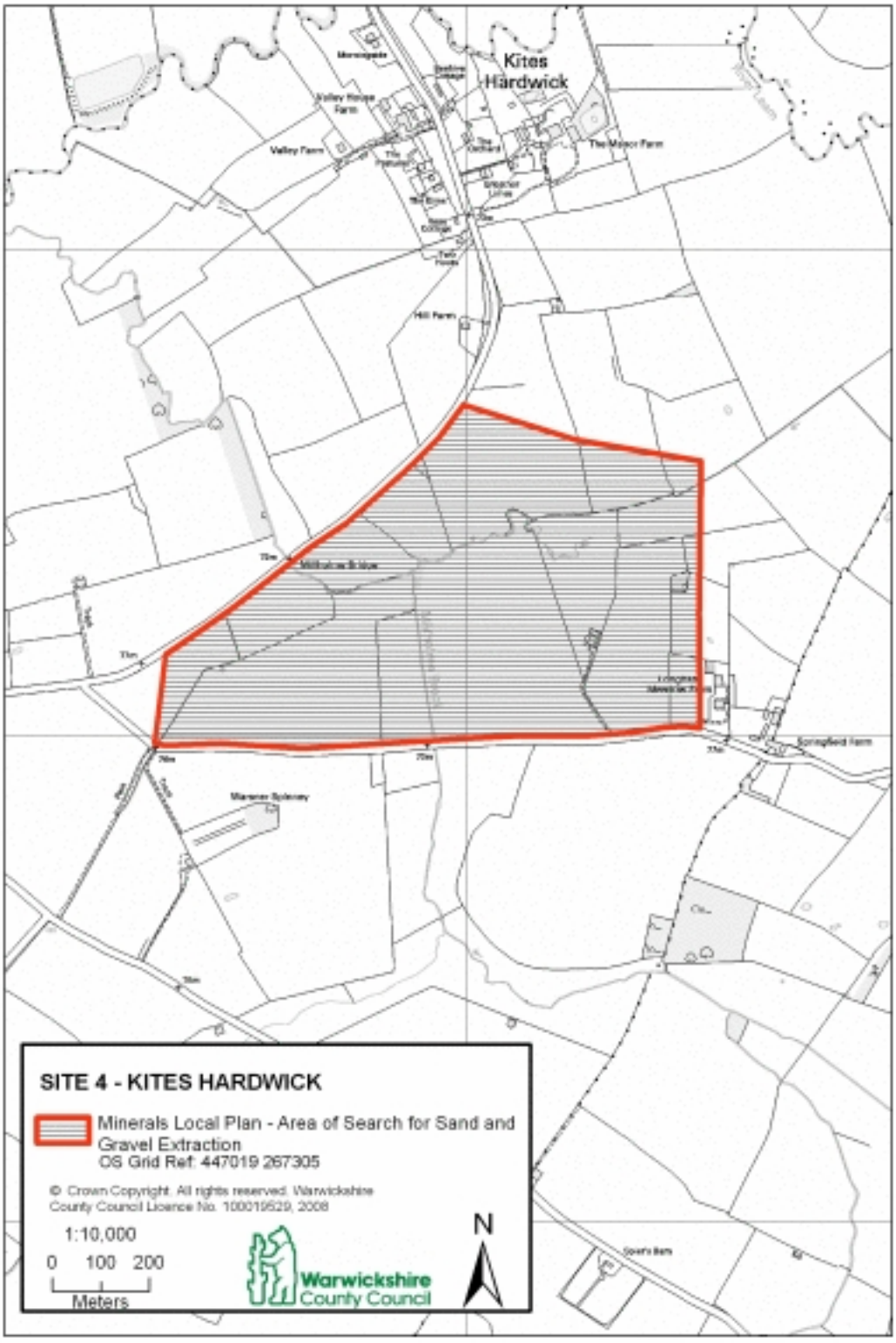
Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.3 Area of Search Site 3 - Ling Hall Extension

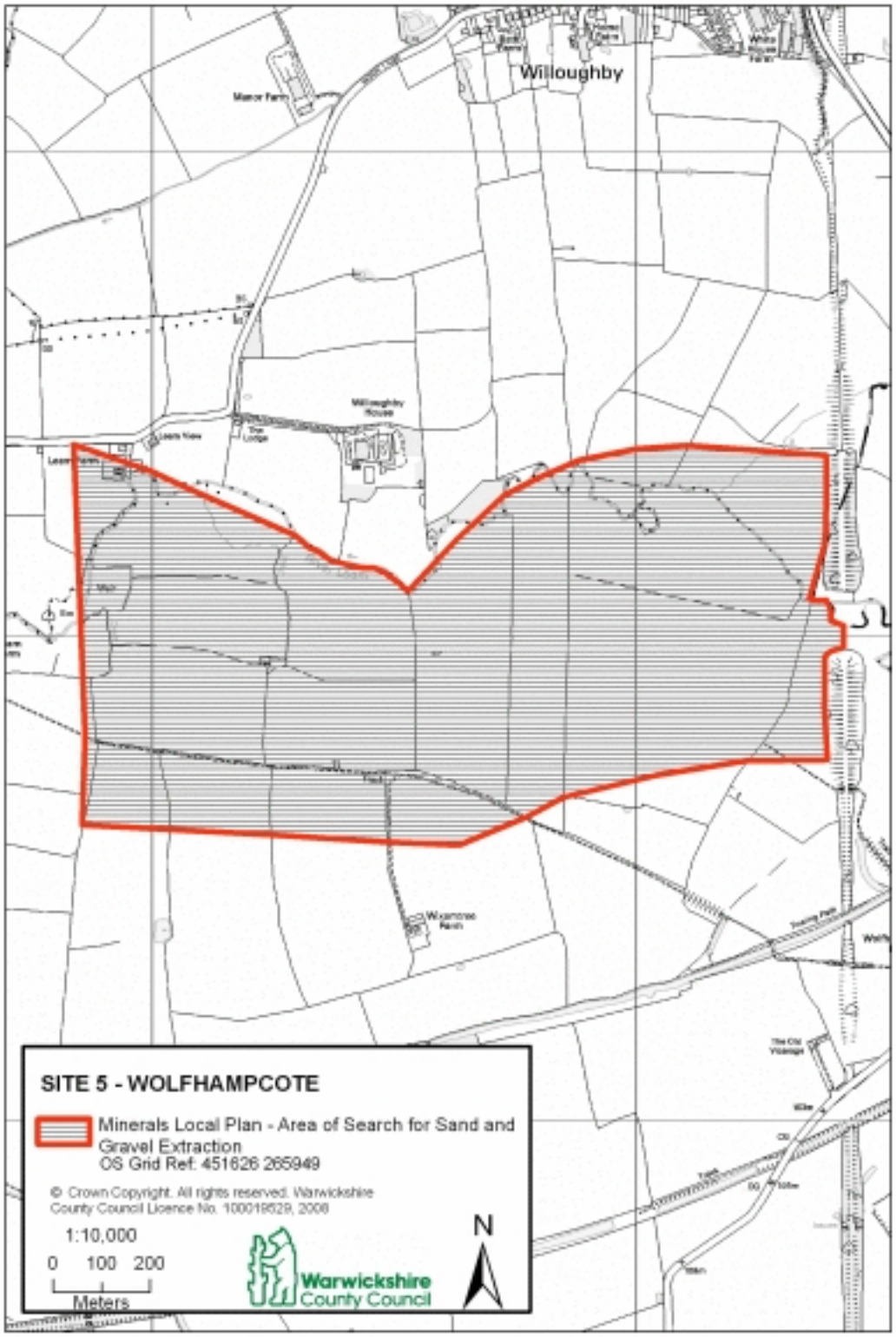
7

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.4 Area of Search Site 4 - Kites Hardwick

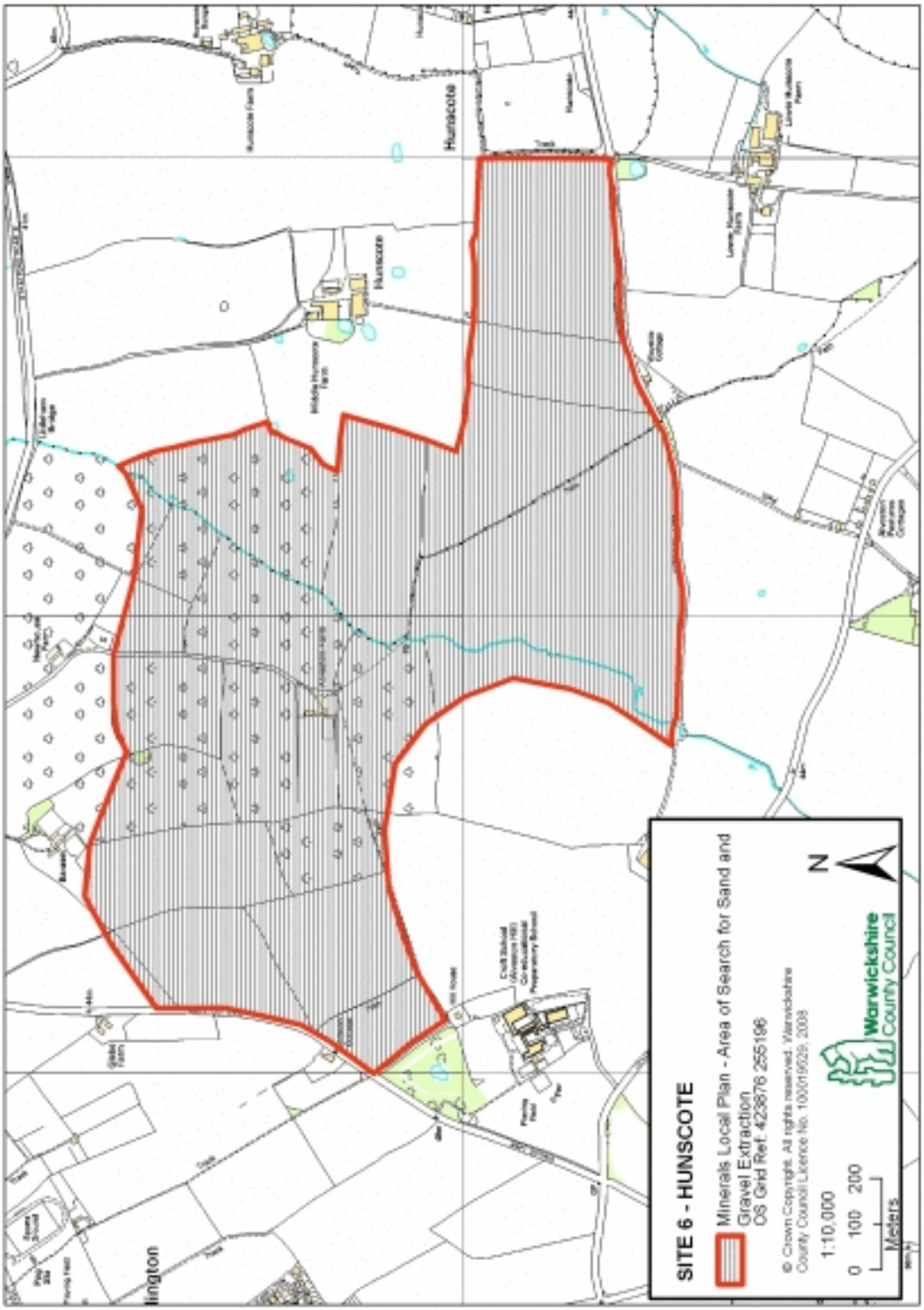
Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.5 Area of Search Site 5 - Wolfhampcote

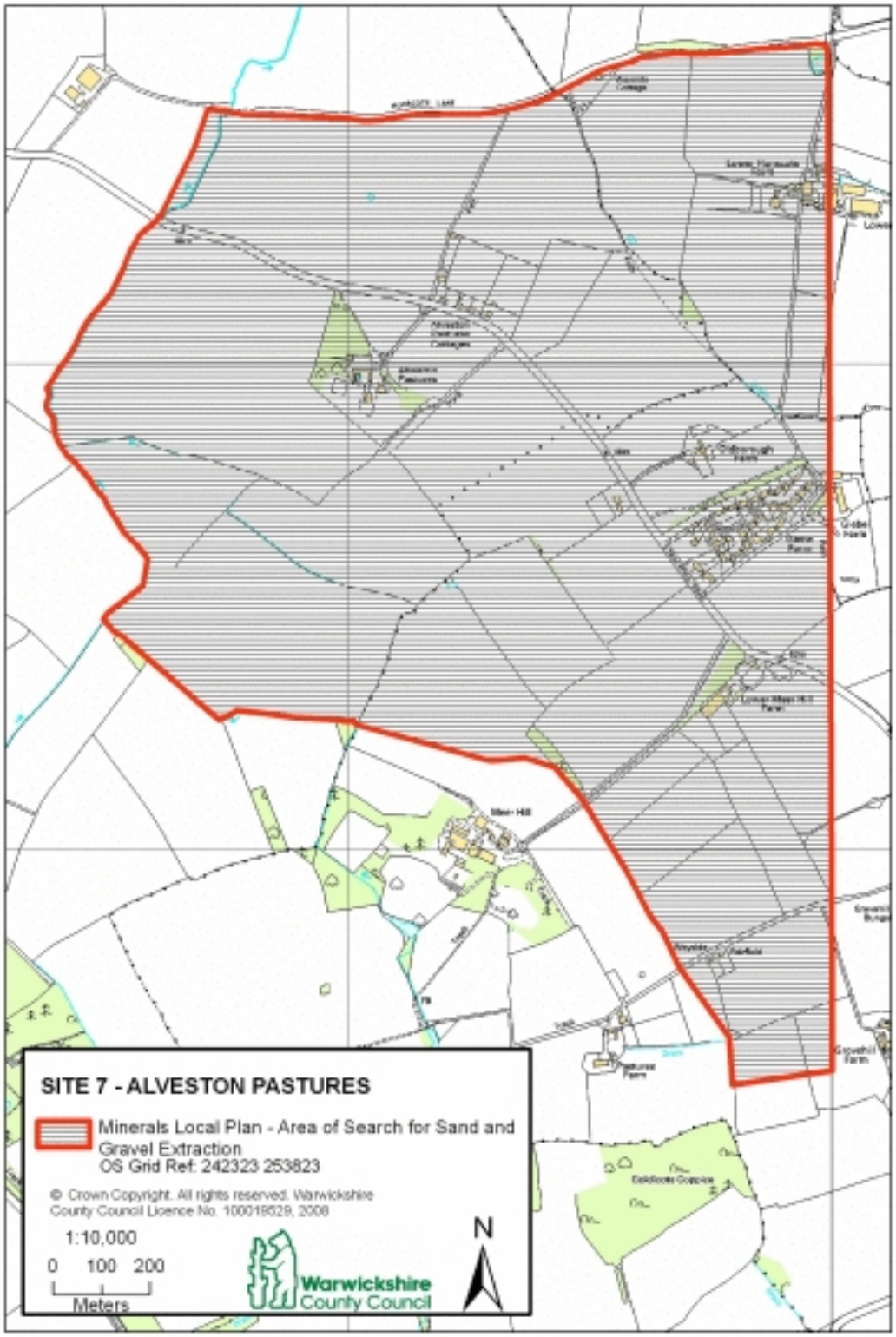
7

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.6 Area of Search Site 6 - Hunscote

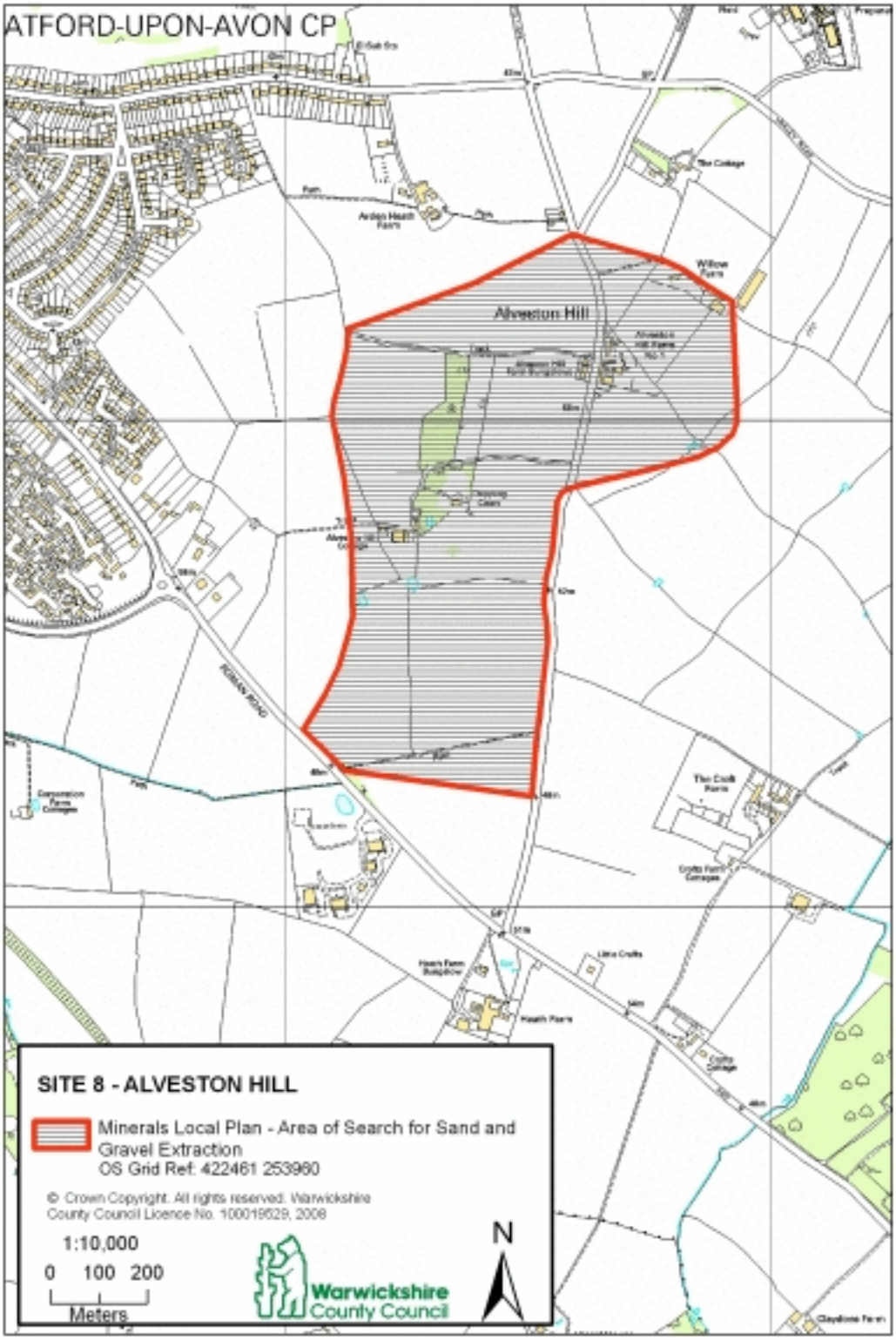
Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.7 Area of Search Site 7 - Alveston Pastures

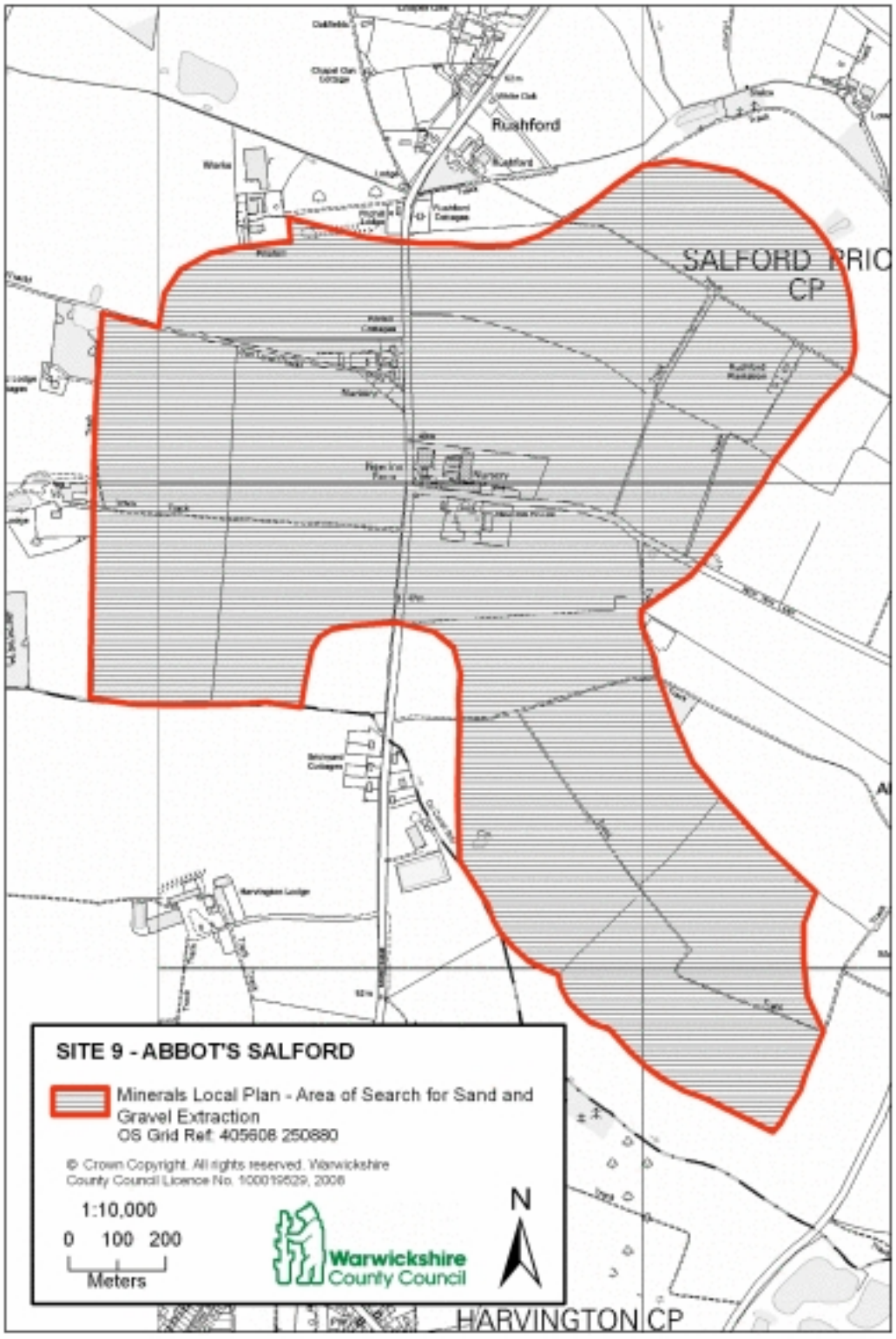
7

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.8 Area of Search Site 8 - Alveston Hill

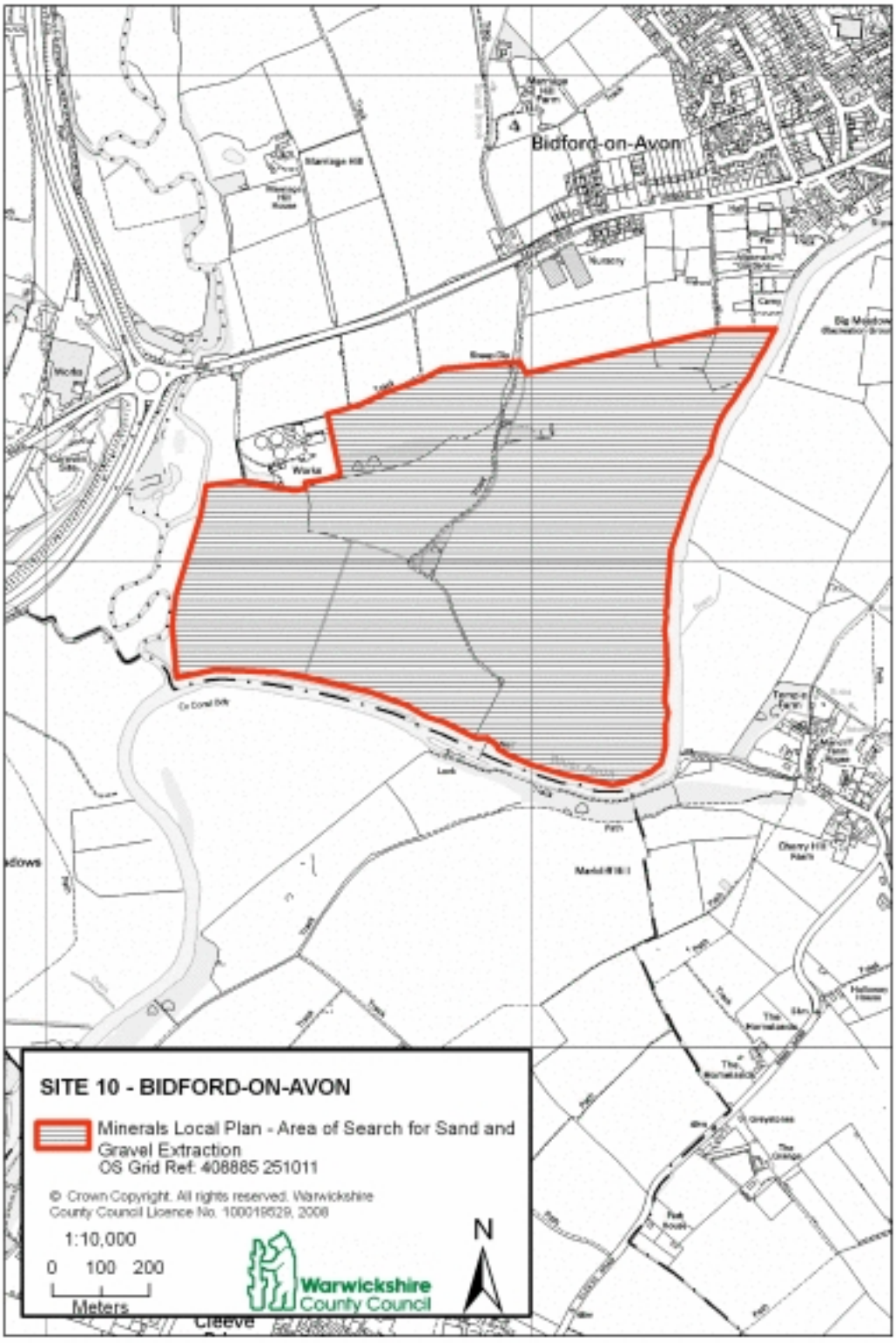
Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.9 Area of Search Site 9 - Abbot's Salford

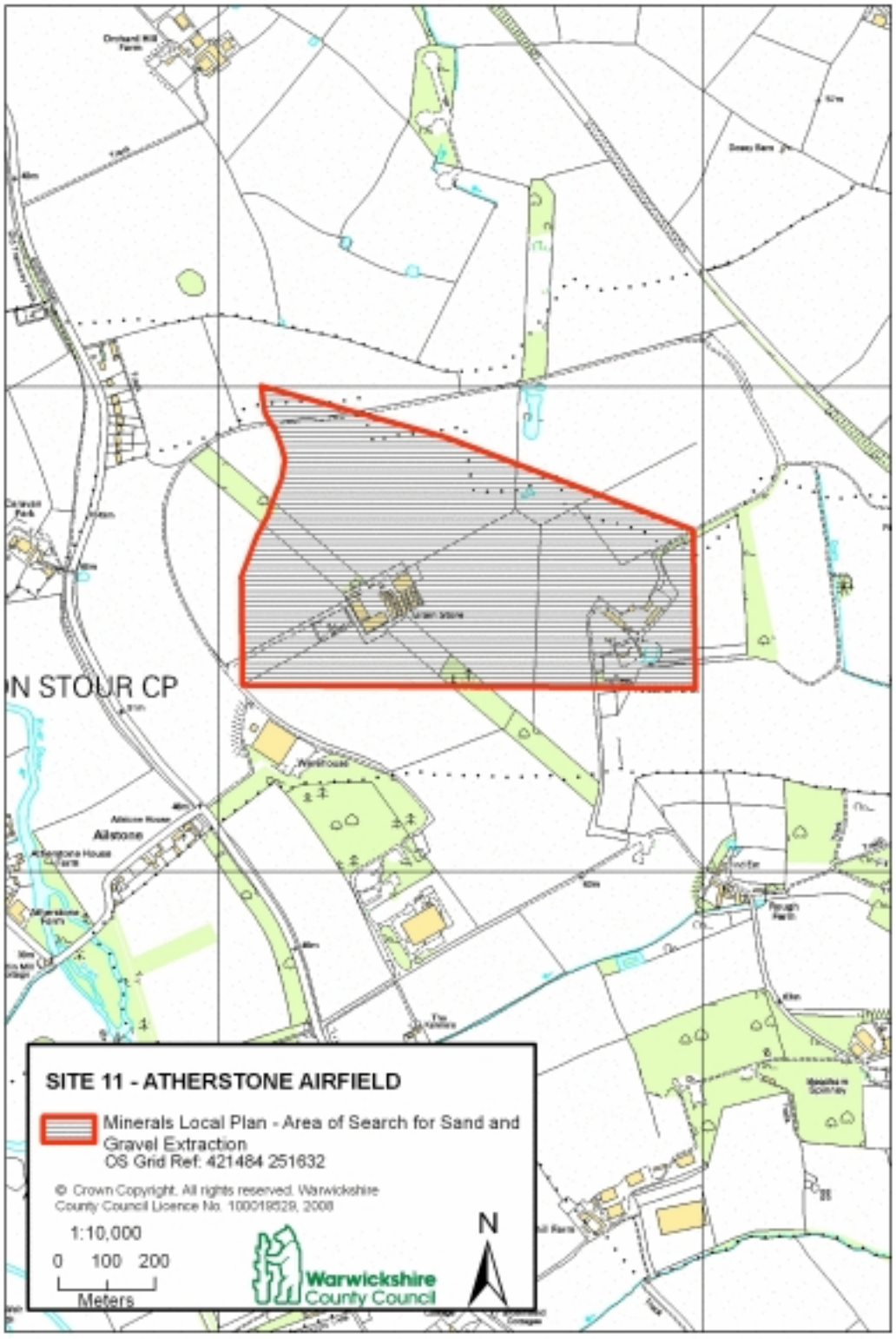
7

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.10 Area of Search Site 10 - Bidford on Avon

Minerals Local Plan (1995) - Areas of Search for Sand and Gravel



Map 7.11 Area of Search Site 11 - Atherstone Airfield

8 Minerals Local Plan Sites Comment Form

ADOPTED MINERAL PLAN SITES

Question

38. **Are there any sites in the adopted Minerals Plan which should be included in the Minerals Development Framework?**

9 Glossary

Term	Description
Aftercare	The management and treatment of land for a set period of time immediately following the completed restoration of a mineral working to ensure the land is returned to the required environmental standard.
After-use	The long term use that land formerly used for mineral workings is restored to. This use can be agricultural, forestry or public amenity such as country parks.
Aggregates	A term defined by the British Geological Survey to describe "granular or particulate material which is suitable for use, on its own or with a binder such as cement, lime or bitumen, in construction as concrete, mortar, roadstone, asphalt or drainage courses, or for use as constructional fill or railway ballast".
Area of Outstanding Natural Beauty (AONB)	These are statutory designations under the National Parks and Access to the Countryside Act 1949. The primary objective is the conservation of the natural beauty of the landscape.
Apportionment	The proportional split of the regional guidelines for the supply of aggregates for the West Midlands which is shared between the Mineral Planning Authorities.
Annual Monitoring Report (AMR)	The report prepared by the County Council to assess the implementation of the Minerals and Waste Development Scheme and to what extent to which the policies in the Minerals and Waste Development Framework are being successfully implemented.
Ancillary Operations	Those activities associated with the winning and working of minerals such as processing.
Areas of Search	Areas of Search are designated sites which have mineral potential but for which there hasn't been the detailed investigation to prove the quality of the deposit. Therefore industry is encouraged to assess their economic viability. These areas have been examined against environmental constraints and their identification confers a general presumption in favour of proposals for extraction within them.
Borrow Pits	A temporary and usually small scale mineral extraction operation specifically to supply mineral to a major construction project nearby.
Buffer Zones	These are areas drawn around settlements or properties in which mineral development is prohibited. The purpose of these zones is to protect settlements from disruption caused by the working of minerals or prevent sterilisation on mineral resources by the encroachment of other developments.

9 Glossary

Term	Description
Crushed Rock	Naturally occurring rock which is crushed into a series of required sizes to produce an aggregate.
Development Plan Documents (DPDs)	DPDs outline the key development goals of the Local Development Framework. These are documents that have been subject to rigorous community involvement, consultation and independent examination. Once adopted , development control decisions must be made in accordance with the DPDs, unless material considerations indicate otherwise. The Core Strategy is a DPD.
Inert Waste	Waste which will not easily decompose e.g. uncontaminated top soil; subsoil; clay; sand; brickwork; stone; silica and glass. Construction and Demolition waste is a common source of inert material.
Landbank	The total amount of permitted reserves of a mineral within the County.
Landfill	Landfill is the controlled deposit of waste into or onto land. Minerals workings and extraction sites can be used as landfills providing a means to restore the land. Where excavations for landfill are not available it may be possible to deposit waste onto the ground surface and create a waste disposal site – this is known as land-raising.
Local Biodiversity Action Plan (LBAP)	At the 1992 Rio Earth Summit, over 150 countries pledged to conserve their dwindling biodiversity. Britain has already published a UK Biodiversity Action Plan. It is now encouraging local people and local organisations to form partnerships that can produce and deliver Local Biodiversity Action Plans (LBAPs). The LBAP will provide a local response to the UK Government's National Action Plans for threatened habitats and species. It will contribute to national targets wherever these are relevant to Warwickshire, Coventry and Solihull but will also set local targets. It will also contain action plans for all our local habitats and many of our threatened and declining local species. Warwickshire LBAP is due to be fully launched in 2006.
Local Development Document (LDD)	The generic name given to all documents that make up the Minerals and Waste Development Framework.
Local Development Scheme	The Local Development Scheme is a public “project plan” identifying which local development plan is to be produced and when.
Local Geodiversity Action Plan (LGAP)	A mechanism for co-ordinating and delivering local geological conservation adapted from the strategic approach for Biological conservation, (Local Biodiversity Action Plans)
Mineral Consultation Areas (MCAs): *(to be replaced by **Mineral Safeguard Areas** in Minerals Core Strategy)*	MCAs are broad areas in which the presence of minerals resources has been identified but not assessed in detail. Currently Warwickshire County Councils MCAs define areas where there is a presence of **aggregate resources**. This has been supplied to all five District Councils within the County. As the Mineral Planning Authority,

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Term	Description
	Warwickshire requires to be consulted on all planning applications falling within the Mineral Consultation Areas with the following exceptions. • Development in accordance with the allocations of an adopted or deposited local plan • Householder applications such as extensions to houses • Reserved Matter applications unless the Mineral Planning Authorities specifically requested consultation at the Outline stage • Minor Developments, such as fences, walls, bus shelters • Applications for listed buildings unless specifically requested • Advertisement applications • Extensions or alterations to an existing use/building which do not fundamentally change the scale and character of the use/building, but **sub-division of a dwelling will require consultation** • Developments requiring permission by virtue of a Direction under Article 4 of the Town and Country Planning General Permitted Development Order 1995 District Councils may be required to ensure that applicants provide evidence that for developments within MCA's the mineral potential of the area has been properly investigated and where sterilisation of reserves would occur, then planning permission should be refused unless overriding considerations exist.
Mineral Development	Any activity related to the exploration for the extraction and working of minerals, including tipping of spoil and ancillary operations such as the construction and use of processing plant.
Mineral Reserves:	Mineral deposits which have been investigated and are proven to be of economic importance due the quality, quantity and nature of the deposit.
Mineral Resource:	A potential source of a mineral where the deposit's nature, quality and quantity has yet to be assessed or is not yet economic.
Mineral Safeguard Areas	These are clearly identified sites where mineral reserves are known, assessed and are very likely to be subject to a planning application for extraction in the near future. Warwickshire would expect to be consulted in the event of any planning application or proposed development within these sites and where sterilisation of the reserves would occur permission should be refused unless overriding conditions exist or the mineral could be extracted prior to development.

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Term	Description
Minerals and Waste Development Framework (MWDF)	A 'folder' containing all the Local Development Documents produced by Warwickshire for Minerals and Waste and therefore contains all the planning policies.
Minerals and Waste Development Scheme (MWDS)	The project plan and timetable for the preparation of the Minerals and Waste Development Frameworks and all its constituent documents.
Minerals Core Strategy Development Plan Document	A document which sets out the long term vision, objectives and strategy for mineral development across Warwickshire up to 2026, and provides the framework for mineral development control.
Minerals Local Plan for Warwickshire	Detailed statutory land use plan adopted by Warwickshire in 1995 which sets out the specific policies and proposals to be applied to planning applications for the working of minerals in Warwickshire. The Minerals Local Plan is saved until September 2007. The Minerals Development Framework will replace this document.
Permitted Reserves	The quantity of mineral which is still in the ground but there exist a planning permission for its extraction. *(see Landbank)*
Preferred Areas	Areas which have known economic deposits of minerals and have been examined both against environmental constraints and mineral content. Their identification confers a general presumption in favour of proposals for extraction within them.
Primary Aggregates	Material extracted or produced from naturally occurring mineral deposits used as an aggregate.
Regional Spatial Strategy (RSS)	The strategic plan setting out the region's policies elation to the development and use of land. This is a statutory plan and will form the basis for preparing Local Development Documents. The West Midlands RSS is prepared by the West Midlands Regional Assembly acting in their role as the Regional Planning Body for the West Midlands.
Restoration	Once mineral developments have ceased sites are required to be returned to an acceptable environmental state whether this be a continuation of the existing land use or the creation of a new one.
Secondary Aggregates	These are materials which originate as waste products from quarrying and mining activities or as a by-product from an industrial process which can be processed and used as an aggregate in the construction industry. Examples include power station ash and colliery spoil.
Statement of Community Involvement	A document which outlines the standards and approach that the County will undertake in engaging stakeholders and the local community in producing its Minerals and Waste plans.

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Term	Description
Special Area of Conservation (SAC)	These are strictly protected sites of international importance designated under the EC Habitats Directive.
Sterilisation	This occurs when developments such as housing, roads or industrial parks are built over potential mineral reserves.
Sustainability Appraisal	This is a statutory requirement of the 2004 Planning Act. Sustainability Appraisal is an evaluative process for assessing the environmental, social and economic effects of all plans and programmes and appraising policies to ensure they reflect sustainable development objectives.
Waste (Local Development Framework) Core Strategy	This sets out the long term vision, objectives and strategy for waste development across the County up to 2021 and provides the framework for waste development control.
Waste Allocations Development Plan Document	This will provide detailed land allocations for waste related developments and criteria based policies where this is not possible.
West Midlands Regional Aggregates Working Party (RAWP)	A working group which draws its members from the Mineral Planning Authorities of the West Midlands, representatives of the aggregates industry and central government established to consider and help plan for the supply of aggregates.

Table 9.1 Glossary