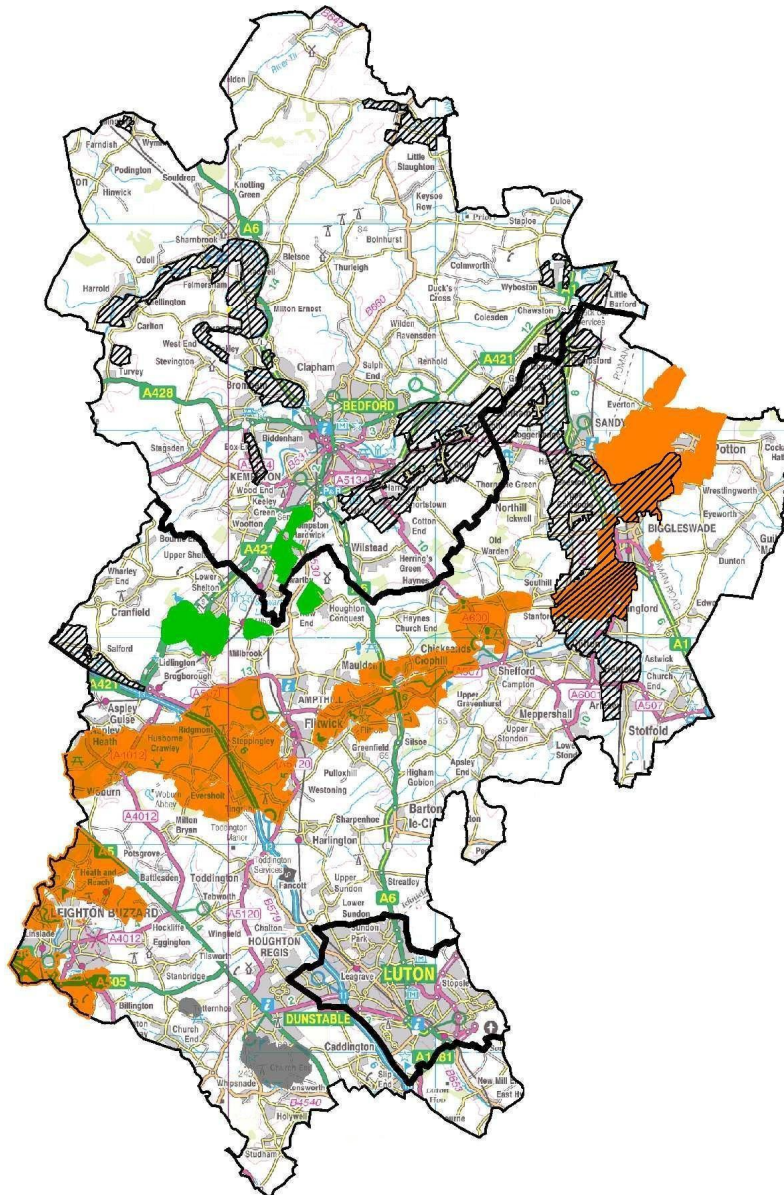


Mineral Safeguarding Areas: Consultation Document (February 2011)



Central Bedfordshire Council, Bedford
Borough Council and Luton Borough Council

working together

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1 How to respond

The primary means of responding to this consultation is to use the portal at:

<http://centralbedfordshire-consult.limehouse.co.uk/portal>

Alternatively, representations can be made by e-mail to:

- mwplans@centralbedfordshire.gov.uk
- Or by post to: Joint Minerals and Waste Planning Unit, Central Bedfordshire Council, Priory House, Monks Walk, Shefford, Chicksands, SG17 5TQ.

Please note that we need your full name and address, including postcode, to register your comments, and that comments need to refer to specific questions to which they relate.

Data Protection Act

The information that you provide will be processed by Central Bedfordshire Council, Bedford Borough Council and Luton Borough Council and it's agents, in accordance with the Data Protection Act 1998. This will contribute to the Joint Minerals and Waste Development Framework and other statutory land use and transportation planning functions. To comply with the The Town and Country Planning (Local Development) (England) Regulations 2004, the authorities may need to make all comments submitted available for public inspection.

2 What is Mineral Safeguarding?

2.1 The Minerals and Waste Local Development Framework is owned by Bedford Borough Council, Central Bedfordshire Council, and Luton Borough Council. These Councils became responsible for minerals planning as a result of different Local Government Re-Organisations. Luton Borough Council became a unitary planning authority and mineral planning authority in 1998, while Bedford Borough Council and Central Bedfordshire Council became unitary planning authorities and mineral planning authorities in April 2009.

2.2 According to the Minerals and Waste Local Development Scheme, approved in July 2009, the intention is to develop a combined Minerals and Waste Core Strategy, which will include policies concerning the provision of minerals and waste management capacity; identify Strategic minerals and waste management sites; and identify and protect mineral deposits of economic value. Mineral deposits are to be safeguarded from surface development that would sterilise the mineral deposit by preventing it from being worked at some point in the future.

2.3 Mineral Safeguarding is the process whereby the presence of a mineral resource is taken into account in deciding whether proposed non-mineral development should be granted planning permission. In this document Mineral Safeguarding is:

- The process of defining Mineral Safeguarding Areas (MSAs) in Local Development Documents (LDDs), in order that mineral resources are not needlessly sterilised by non-mineral development, although there is no presumption that resources defined in MSAs will be worked;
- Encouraging the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in a MSA;
- Defining MSAs in Local Development Documents to alert prospective applicants for non-minerals developments to the existence of valuable mineral resources.

2.4 Once identified, MSAs will act as the key trigger for the application of the Core Strategy Mineral Safeguarding Policies.

2.5 However, the identification of MSAs carries no presumption in favour of extraction and there is no presumption that any areas within MSAs will ultimately be environmentally acceptable for mineral extraction in the future. The purpose of MSAs is to ensure that mineral resources of potential, imminent, or future interest are adequately and effectively considered in land-use planning decisions, so that they are not needlessly sterilised. To achieve this MSAs identify where economically valuable mineral resources may be present, and trigger a planning policy to achieve safeguarding.

3 What is the relationship with the Minerals Core Strategy?

3.1 The Vision in the 2007 Minerals Core Strategy Preferred Options document stated: "There will be a steady and adequate supply of minerals in Bedfordshire and Luton, sufficient to meet the needs of national and regional supply policy and the local development needs arising from the Sustainable Communities programme and the Milton Keynes & South Midlands sub-regional strategy". Following Local Government Re-Organisation in April 2009, the Vision will be altered in its wording to reflect that the Minerals and Waste Local Development Documents relate to the area of Bedford Borough, Central Bedfordshire, and Luton Borough Councils.

3.2 In addition, one of the Strategic Objectives of the 2007 Minerals Core Strategy Preferred Options document was: "To conserve mineral resources by protecting them from sterilisation, encouraging their prudent use, and specifying appropriate phasing mechanisms for their release". Mineral Safeguarding Areas serve the strategic function of protecting mineral resources from being unnecessarily sterilised by surface developments. Safeguarding is therefore one of the mechanisms by which the Objectives of the Core Strategy will be achieved.

4 Which mineral resources are to be safeguarded and how?

4.1 The purpose of this section is to explore the options for safeguarding the geological resources of potential, imminent, and future interest. These minerals are listed in Table 1. For each mineral a number of options for safeguarding are put forward and the Mineral Planning Authority's preferred option is identified.

4.2 The British Geological Survey (BGS) 'Mineral Resource Information for Development Plans in Bedfordshire' (1995), provides the primary information source regarding minerals resources within the Plan area. This report and accompanying map delineate and describe the mineral resources of historic, current, and potential economic interest in the area.

4.3 There are some mineral resources present which are widespread across the Plan area and are of a relatively low economic value, such as the Gault Clay. In this instance it is questionable whether this resources should be safeguarded.

4.4 This section provides a brief summary of the geological resources, from which the main economic minerals are currently, or have been extracted within the Plan area. Options as to whether they are to be Safeguarded or not are identified, and Preferred Options identified. A simplified sketch map of the Plan (Picture 1) shows the geological succession.

Picture 1 The Geology of the Plan area

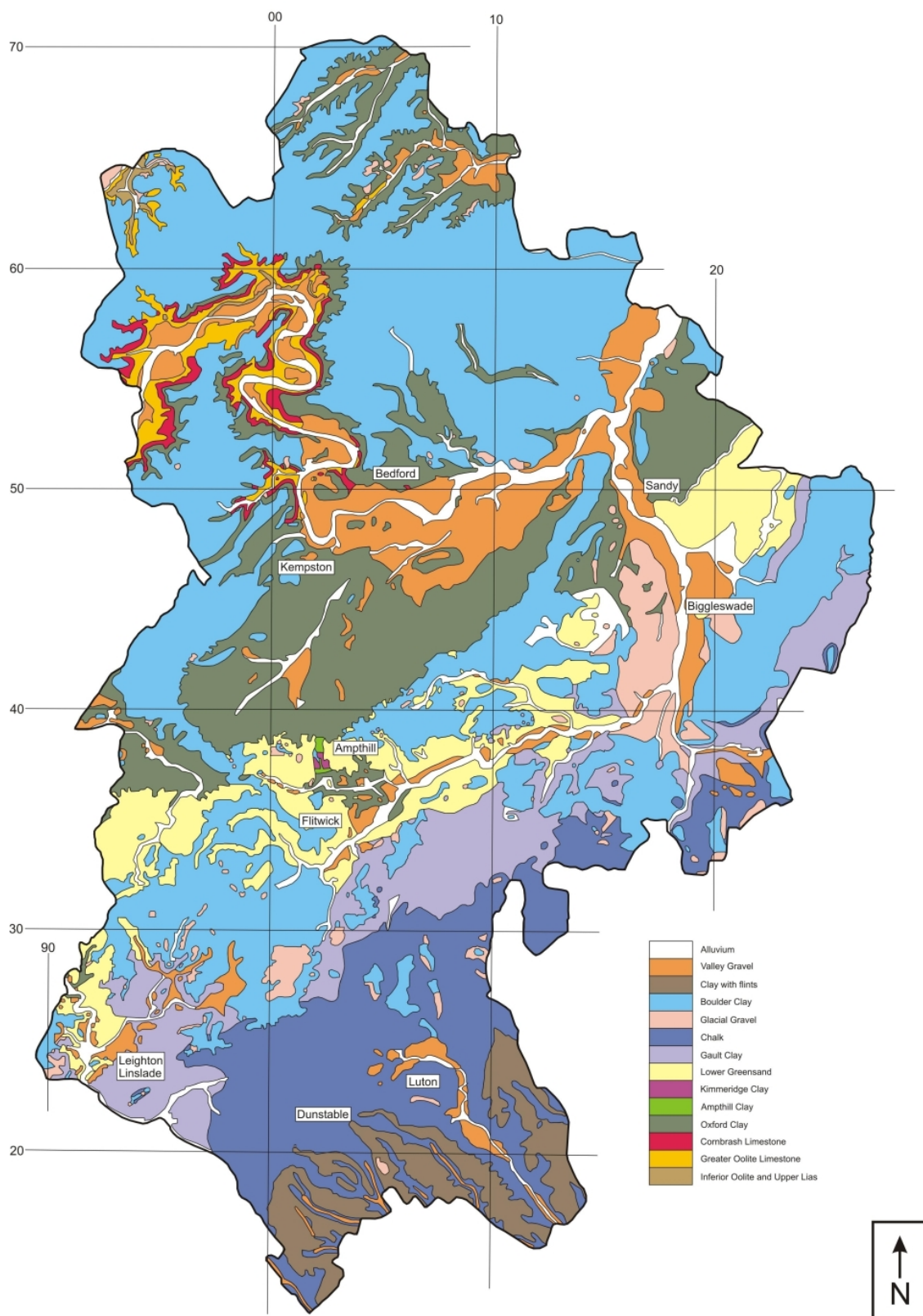


Table 1 Mineral resources of the Plan area

Age	Geological Unit	Mineral and current end uses
Quaternary	River sand and gravel	Sand and gravel for aggregate.
	Glacial sand and gravel	Sand and gravel for aggregate.
Cretaceous	Chalk Group	Chalk for cement manufacture. Totternhoe Stone for building stone.
	Woburn Sands	Sands (for building, asphaltting and concreting). Silica sands (for water filtration, sports sands, horticultural sands, and other specialist uses.). Fuller's Earth.
Jurassic	Lower Oxford Clay	Clay for engineering purposes.
	Cornbrash Limestone	Cornbrash limestone for building stone.

River valley and glacial sand and gravels

4.5 Quaternary sand and gravel resources are widespread across the Plan area, and range from glacial 'outwash' deposits to the west of Biggleswade, to younger river terrace deposits alongside and beneath the alluvium of the River Great Ouse and its tributary, the River Ivel. They are an important source of concreting and other aggregates ⁽¹⁾, and it will therefore be important to safeguard these resources for the future benefit of the plan area.

1 Bedfordshire Aggregates Landbank Study, Cuesta, 2005

River valley and glacial sand and gravel safeguarding options.

The options considered in relation to safeguarding the river valley and glacial sands and gravels are as follows:

Option A:

Do not safeguard river valley and glacial sand and gravel deposits.

Option B (see 'Map 1'):

Limit the area subject to Mineral Safeguarding to:

- all former and current permitted mineral extraction sites;
- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process using a 250 metre buffer zone;
- excluding areas already overlain by settlements and other built development,
- excluding land identified in non-minerals and waste development Plans.

Option C (see 'Map 2'):

Safeguard the river valley and glacial sand and gravel resource areas as defined by existing Mineral Consultation Areas (MCAs).

Option D (see 'Map 3'):

Refine / amend existing Mineral Consultation Areas (MCAs) to safeguard the entire river valley and glacial sand and gravel resource area including:

- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process;
- excluding areas already overlain by settlements and other built development;
- excluding land identified in non-minerals and waste development Plans.

Reasoning for these Options:

4.6 General: The variability of these deposits, means that compared to other bulk minerals, it is more difficult to be precise about the location and likely extent of potentially workable resources. In addition, the yield of mineral per hectare is relatively low compared to other minerals, and therefore the operational life of these workings is relatively short, consequently the minerals industry has to find new sites regularly in order to continue to meet the demand for construction materials.

Option A: Deposits are widespread throughout the Plan area, and due to the nature of their deposition, tend to be situated within the flood plain where there is a risk of flooding. Planning Policy Statement 25: Development and Flood Risk, encourages Planning Authorities to avoid permitting development in areas of flood risk, and therefore the risk of sterilisation by development may be lower than for other types of mineral, meaning safeguarding may not be necessary.

Option B: Deposits of these minerals can be highly variable and difficult to assess without site specific investigations. The presence of former and current mineral extraction sites indicates that an economic reserve has existed in the past, and therefore further reserves may be present in the vicinity of these sites. This option would focus safeguarding on those areas which are likely to contain an economic reserve, without placing undue restrictions on surface development. However, the disadvantage of this approach is that areas of potential but unknown quality may not be safeguarded.

Option C: Existing MCAs were based on the best available geological information at the time of their production⁽²⁾. Our knowledge of the location and extent of sand and gravel deposits within the Plan area has not improved significantly since these were produced, and therefore it may be appropriate to use MCA boundaries to define the sand and gravel MSA. However, the disadvantage of this approach is that it will not reflect revisions to settlement boundaries made since the MCAs were produced, which could place undue restrictions on surface development in those areas.

Option D: MSA boundaries have been drawn as close to the resource area as possible, using well defined physical boundaries such as roads, fields, built development etc. However, although all potential resources would be safeguarded under this option, there would be no distinction made between those that are of good or poor quality. In addition safeguarding the entire resource could have a blighting effect (inhibiting other development) which would impact upon other kinds of development.

Picture 2 Extracting glacial sand and gravel at Broom quarry.



Preferred option for safeguarding river valley and glacial sands and gravels: Option D

Refine / amend existing Mineral Consultation Areas (MCAs) to safeguard the entire river valley and glacial sand and gravel resource area including:

- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process;
- excluding areas already overlain by settlements and other built development;
- excluding land identified in non-minerals and waste development Plans.

(see map 'Preferred Mineral Safeguarding Areas').

2 Knowledge of the geology of the Plan area is based on geological mapping produced by the British Geological Survey (BGS).

4.7 Current extraction rates for river valley and glacial sands and gravels are high. It is more appropriate to safeguard the entire resource area than to focus safeguarding around existing and former workings because workable mineral resources are not always present adjacent to existing/former workings, but also occur separate from these sites. This approach will also ensure that the MSA boundaries reflect up to date settlement boundaries, and areas identified for future non-minerals development within the three Councils LDFs, so that safeguarding focuses on those areas where workable mineral could be sterilised.

Question - River valley and glacial sand and gravel Safeguarding Options.

Do you agree or disagree with the preferred MSA for sand and gravel? Please state your reasons.

The Woburn Sands

4.8 One of the most distinctive landforms in the Plan area is the Greensand Ridge which extends from Leighton Buzzard in the west, to Potton in the east. As the name suggests, the Greensand Ridge is formed by the rocks of the Lower Greensand (now referred to as the Woburn Sands Formation by geologists⁽³⁾). The sands show marked variations in quality and particle-size distribution from place to place, and represent an important source of concreting, building, and asphaltting sands, and locally, where of higher purity, Silica Sand⁽⁴⁾⁽⁵⁾. Silica Sand is a term applied to sands which are not sold as aggregate. These sands supply a wide range of more specialist uses within the Plan area. These include, water filtration, sports sands, and horticultural sands, and a range of industrial applications.

Picture 3 Silica sand at Munday's Hill quarry, near Leighton Buzzard.



4.9 At the time of writing, extraction of the minerals from the Woburn Sands is located in the areas of Leighton Buzzard, Clophill, and Sandy (the former being an important source of silica sand⁽⁶⁾, the latter being an important source of building and asphaltting sand. At Hanson's Clophill site, the sands have been worked on a small scale for use as facing sand in brick production.

3 Accessed at <http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=WBS>

4 Bedfordshire Silica Sand Study, 2006/07, Cuesta Consulting Limited (February 2008)

5 Existing government guidance on silica sand is contained within Minerals Planning Guidance 15: Provision of Silica Sand in England (MPG15).

6 In the vicinity of Leighton Buzzard construction and silica sands are normally derived from the same quarry, where their production is interdependent.

The Woburn Sands Formation safeguarding options.

The options considered in relation to safeguarding the Woburn Sands are as follows:

Option A:

Do not safeguard the Woburn Sands Formation.

Option B (see 'Map 1'):

Limit the area subject to Mineral Safeguarding to:

- all former and current permitted mineral extraction sites;
- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process using a 250 metre buffer zone;
- excluding areas already overlain by settlements and other built development,
- excluding land identified in non-minerals and waste development Plans.

Option C (see 'Map 2'):

Safeguard the Woburn Sands Formation as defined by existing Mineral Consultation Areas (see 'Map 2').

Option D (see 'Map 3'):

Refine / amend existing Mineral Consultation Areas (MCAs) to safeguard the entire Woburn Sands resource area including:

- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process;
- excluding areas already overlain by settlements and other built development;
- excluding land identified in non-minerals and waste development Plans.

Reasoning for these options:

Option A:

The Woburn Sands Formation is extensive in area, stretching from Leighton Buzzard in the west, to Potton in the east. Given the overall abundance of these minerals, it may not be necessary to safeguard this resource. However, whilst overall the Woburn Sands are abundant, deposits of silica sands and Fuller's Earth are more sporadic, and thus this option could result in potentially important deposits of these minerals being sterilised.

Option B:

Although extensive in distribution, the Woburn Sands show marked variations in quality and particle-size distribution from place to place. With regards to Silica Sand and Fuller's Earth, the occurrence of these within the Woburn Sands Formation is very sporadic, due to the special geological conditions required for their formation. The presence of former and current permitted workings indicates that an economic reserve has existed in the past in that area. This option would therefore focus safeguarding on those areas which may contain an economic reserve. In so doing this would also reduce blighting as a smaller area is safeguarded. Whilst this option would safeguard existing permitted reserves and possible deposits in the immediate vicinity of these workings, it would not necessarily safeguard all viable deposits of these minerals.

Option C:

Existing MCAs were based on the best available geological information at the time of their production⁽⁷⁾. Our knowledge of the location and extent of Woburn Sands deposits within the Plan area has not changed significantly in this time, and therefore it may be appropriate to retain the MCA boundaries as they are in developing the new MSAs. However, in following this approach, the boundaries of the existing MCA will not necessarily reflect the up to date locations of settlement boundaries within the Plan area, nor will they reflect additional proven reserves, meaning potentially important resources could be sterilised.

Option D:

As well as being an important source of building sands within the Plan area, the Woburn Sands are also a source of Silica sands, and Fuller's Earth (see para 3.9). However, the exact location and physical characteristics of these sands cannot be known without site specific investigation. Safeguarding the entire resource will ensure that all potentially important buildings sands, silica sands and Fuller's Earth are safeguarded against future development.

Preferred Option for safeguarding the Woburn Sands: Option D

Refine / amend existing Mineral Consultation Areas (MCAs) to safeguard the entire Woburn Sands resource area including:

- all sites put forward by the mineral industry for consideration as part of the Minerals and Waste Local Development Framework process;
- excluding areas already overlain by settlements and other built development;
- excluding land identified in non-minerals and waste development Plans.

(see map 'Preferred Mineral Safeguarding Areas').

4.10 The Woburn Sands resource area is extensive, but the sands vary considerably in terms of their physical characteristics from one location to the other. The exact location and physical characteristics of these sands cannot be known without site specific investigation, and therefore it is appropriate to safeguard the entire resource area to ensure that all possible economic reserves are protected against sterilisation.

Question - The Woburn Sands Formation safeguarding options.

Do you agree or disagree with the preferred MSA for the Woburn Sands? Please state your reasons.

Fuller's Earth

4.11 Fuller's Earth is a rare clay with a restricted distribution in Britain. It contains a high proportion of clay minerals which formed from the decomposition of volcanic ash in a marine environment. It is these clay minerals which give Fuller's earth its unique properties, which have resulted in its use in a wide range of industrial applications, including absorbents and filters, and as a bonding agent for foundry sands.

⁷ Knowledge of the geology of the Plan area is based on geological mapping produced by the British Geological Survey (BGS).

4.12 The occurrence of Fuller's Earth throughout the Plan area is very sporadic, due to the geological conditions required for its formation. Therefore the best prospects for finding further Fuller's Earth deposits of potential economic interest are in those areas near to known deposits previously worked. In the Plan area, Fuller's Earth has been worked near Woburn, and Clophill. There are no active Fuller's Earth quarries in the Plan area.

Fuller's Earth safeguarding options.

The options considered in relation to safeguarding Fuller's Earth are as follows:

Option A:

Do not safeguard Fuller's Earth.

Option B (see 'Map 1'):

Limit MSA to former permitted Fuller's Earth workings using a 250 metre buffer zone.

Option C (see 'Map 3'):

Do not identify specific MSAs for Fuller's Earth, instead safeguard Fuller's Earth as part of the overall Woburn Sands MSA in which deposits occur.

Reasoning for these options:

Option A: Deposits of Fuller's Earth are sporadic, and the presence of these minerals can only be proven with site specific investigation. Any attempt to identify possible reserves is therefore highly speculative, and may be misleading.

Option B: Deposits of Fuller's Earth are sporadic, due to the special geological conditions required for its formation. Therefore, the best prospects for finding further Fuller's Earth deposits may be in those areas near to former workings. Whilst this option would safeguard likely deposits, it would not necessarily safeguard all Fuller's Earth deposits which could mean that potentially important resources could be sterilised.

Option C: The occurrence of Fuller's Earth in the Plan area is sporadic, and therefore it may be appropriate to safeguard the whole Woburn Sands resource in which Fuller's Earth deposits are found, to ensure that potentially important Fuller's Earth deposits are not sterilised by future development.

Preferred Option for Safeguarding Fuller's Earth: Option C

Do not identify specific MSAs for Fuller's Earth, instead safeguard mineral as part of the overall Woburn Sands MSA in which deposits occur (see map 'Preferred Mineral Safeguarding Areas').

4.13 Deposits of these minerals are sporadic, and therefore it is not possible to locate further resources with any certainty. Although further resources may be present adjacent to former workings, they could equally occur away from former sites, and therefore it is appropriate to safeguard these minerals as part of the overall Woburn Sands Safeguarding Area in which deposits may occur.

Question - Fuller's Earth safeguarding options.

Do you agree or disagree with the preferred MSA for Fuller's Earth? Please state your reasons.

Chalk Group

4.14 Chalk outcrops in the southern part of the Plan area, and forms the distinctive escarpment of the Chiltern Hills around Dunstable and Luton. Within the Plan area chalk is currently extracted from only two quarries: Kensworth, and Totternhoe. In tonnage terms, the most important of these is Kensworth Quarry which supplies over 1,700,000 tonnes of chalk per year to a cement works located in Warwickshire. The crushed and slurried chalk is pumped by pipeline to Rugby and Southam in Warwickshire, where it is mixed with clay for cement manufacture. At the time of writing, permitted reserves at Kensworth are in excess of 47 million tonnes.

Picture 4 Chalk at Kensworth quarry, near Dunstable.



4.15 Guidance for the provision of raw materials for cement production is set out in Minerals Planning Guidance 10: Provision of raw material for the Cement Industry (MPG10), which outlines the national planning context for the cement industry. At the present, the UK does not have sufficient cement plant capacity to meet UK demand. It is against this national background that safeguarding should be considered.

4.16 Totternhoe Stone is a harder type of chalk and is extracted on a small scale as a source of building stone (commonly referred to as 'clunch'), used predominantly in building restoration and conservation work. There are separate planning issues concerning the protection of the sources of vernacular building stone, set out in Minerals Policy Statement 1: Planning and Minerals (MPS1). In particular, the use of locally sourced building stone makes an important contribution to the identity of those areas.

Chalk safeguarding options.

The options considered in relation to safeguarding Chalk are as follows:

Option A:

Do not safeguard the chalk resource.

Option B (see 'Map 1'):

Limit MSA to current permitted chalk quarries using a 250 metre buffer zone.

Option C (see 'Map 2'):

Safeguard the entire chalk resource area, as defined by the existing Minerals Consultation Areas.

Reasoning for these options:

Option A: Given the weight afforded to the protection of AONBs by national policy (in PPS7, MPS1), sterilisation by built development within the Chiltern Hills AONB is highly unlikely, and therefore the protection of this resource via safeguarding may be unnecessary.

Option B: The Chiltern Hills from which chalk is derived are designated an Area of Outstanding Natural Beauty (AONB). MPS1 states that mineral development should only be permitted in AONBs in "exceptional circumstances" because of the serious impact that major mineral developments may have on these areas of natural beauty. In addition chalk resources are extensive relative to rates of extraction. Therefore, whilst sources of both cement raw materials, and Totternhoe Stone should be protected, it may make sense to safeguard only deposits surrounding the existing quarries at Kensworth and Totternhoe. Since current methods of chalk extraction do not include blasting, a 250 metre buffer is considered sufficient to protect the amenity of adjacent residents.

Option C: The general consistency of the chalk does not vary greatly throughout the Plan area, and this could make any part of it suitable for extraction. Safeguarding the entire resource would ensure that all chalk is safeguarded against future development.

Preferred option for safeguarding Chalk: Option C

Safeguard existing active sites only, using a 250 metre buffer zone around sites (see 'Preferred Mineral Safeguarding Areas').

Kensworth is worked for cement raw materials, and Totternhoe is worked as a source of building stone for restoration. Both of these sites have significant reserves, and are located within the South Bedfordshire Greenbelt, and the Chiltern Hills Area of Outstanding Natural Beauty (AONB) which suggest that this is not an area where development pressures will be high. Therefore it is adequate to protect only these existing sites to ensure the future supply of these materials.

Question - Chalk safeguarding options.

Do you agree or disagree with the preferred MSA for Chalk? Please state your reasons.

Cornbrash Limestone

4.17 Jurassic limestone is exposed in the valley of the Great Ouse in the north-west of the Plan area. It has been worked on a small-scale in the past, near Pavenham, and this has resulted in a legacy of stone built cottages and houses which give these villages of the upper Ouse their distinctive appearance.

4.18 Currently there are no building stone quarries in the Plan area, and Limestone for restoration and extension work is imported from Northamptonshire and Lincolnshire. However, this stone is not an exact match for the original. To protect the character of these villages it may be appropriate to safeguard this resource.

Cornbrash Limestone safeguarding options.

The options considered in relation to safeguarding the Cornbrash Limestone are as follows:

Option A:

Do not safeguard limestone.

Option B (see 'Map 1'):

Safeguard only the mineral site MD18 (Bury Farm, Pavenham).

Option C (see 'Map 2'):

Safeguard the entire limestone resource/deposit as defined by the existing Minerals Consultation Areas.

Reasoning for these options:

Option A:

4.19 Limestone for the restoration of historic buildings is currently imported from Northamptonshire and Lincolnshire. Due to the nature of this use, it is only required in small quantities. Therefore, whilst this stone does not provide a precise match, it may be more sustainable to continue to import limestone from outside the Plan area. This would also offer the advantage of protecting the viability of existing quarries outside the Plan area.

Option B:

4.20 Limestone deposits are believed to vary in thickness to the west, and north-west of Bedford, and are thought to be very thin or even absent in places (BGS, 2010). Whilst geological maps infer the location of these limestones in the upper Ouse valley, their precise locations can only be proven with site specific investigation. Therefore, it may be more appropriate to safeguard resources known to exist at Pavenham.

Option C:

4.21 Limestone deposits are believed to vary in thickness to the west, and north-west of Bedford, and are thought to be very thin or even absent in places (BGS, 2010). Whilst geological maps infer the location of these limestones in the upper Ouse valley, their precise locations can only be proven with site specific investigation. It may therefore be appropriate to safeguard the entire limestone resource using the existing MCA in the Upper Ouse valley to ensure that all possible reserves are protected against future development.

Preferred Option for safeguarding Cornbrash Limestone: Option B

Safeguard only the mineral site MD18 - Bury Farm, Pavenham (see 'Preferred Mineral Safeguarding Areas').

4.22 Limestone occurs throughout the upper Ouse valley to the west and north-west of Bedford. It is believed to vary considerably in terms of its thickness and physical characteristics from one location to another, and consequently it would be inappropriate to safeguard a wider area. However, this stone has been worked on a small-scale, near Pavenham, close to the location of the proposed site - MD18, and this has

given the villages of the upper Ouse their distinctive appearance. Safeguarding the proposed site at Pavenham will protect a known source of Cornbrash Limestone from sterilisation. In addition to this area, Cornbrash Limestone is known to occur beneath the river valley sands and gravel the valley of the Great Ouse in the north-west of the Plan area. Historically this has sometimes been worked as a by-product of sand and gravel extraction. Whilst this resource has not in itself been safeguarded, the sand and gravels overlaying it have (see 'Preferred option for safeguarding river valley and glacial sands and gravel'), so this resource will enjoy protection by association.

Question - Cornbrash Limestone safeguarding options.

Do you agree or disagree with the preferred MSA for Cornbrash Limestone? Please state your reasons.

Oxford Clay

4.23 The Oxford Clay forms the bedrock over much of the south-eastern part of Bedford Borough. Permitted reserves of Oxford Clay are in the order of 90 million tonnes. It has been worked extensively in the Marston Vale, south of Bedford, where it was used as a source of brick clay and supplied a number brick works. However, the last remaining operational brickworks at Stewartby closed in February 2008, and extraction of the Oxford Clay at Quest Pit ceased at that time.

Oxford Clay safeguarding options.

The options considered in relation to safeguarding the Oxford Clay are as follows:

Option A:

Do not safeguard the Oxford Clay.

Option B (see 'Map 1'):

Limit MSA to existing permitted reserves using a 250 metre buffer zone, excluding land identified in non-minerals and waste development Plans.

Option C (see 'Map 2'):

Safeguard the entire Oxford Clay resource as delineated on the BGS resource map, using the boundary defined by existing Mineral Consultation Areas.

Reasoning for these options:

Option A: There is no longer a demand for clay for brick manufacture within the Plan area as there are no longer any local brickworks. Nevertheless there are already significant permitted reserves of clay in the area and therefore further protection may not be necessary.

Option B: There are over 90 million tonnes of clay at sites with the benefit of planning permission within the Plan area. However, there is no longer a demand for clay from these permitted reserves, since all of the brickworks that they formerly supplied have now closed. However these resources are required from time-to-time for engineering materials only, for example landfill capping. It is therefore appropriate to safeguard the existing permitted reserves.

Option C: Clay is a valuable resource, primarily used in the manufacture of bricks, and it may therefore have a crucial role to play in the planned growth in the Plan area. It may therefore be appropriate to safeguard the entire Oxford Clay resource area as defined by the BGS resource maps.

Preferred Option for safeguarding the Oxford Clay: Option B

Limit MSA to existing permitted reserves using a 250 metre buffer zone, excluding land identified in non-minerals and waste development Plans (see 'Preferred Mineral Safeguarding Areas').

4.24 The Oxford Clay present in the Plan area was historically one of the major sources of brick clay in Britain, with extraction on a significant scale. Whilst brick making has now ceased in the Plan area, these resources are needed from time-to-time for engineering materials, for example landfill capping. It is thus appropriate that existing permitted reserves are safeguarded for engineering purposes only, to ensure that they are not sterilised by surface development. This will ensure the future supply of this mineral without placing undue restrictions on surface development.

Question - Oxford Clay safeguarding options.

Do you agree or disagree with the preferred MSA for Oxford Clay? Please state your reasons.

5 How should safeguarding take place?

MSA Policy Triggers

5.1 The purpose of the policies below is to set out how decision-makers, when considering proposals for surface development, will decide between safeguarding mineral resources (not allowing surface development) and allowing surface development (sterilising the mineral resource). In order to ensure that minor development proposals are not subject to the safeguarding policy, certain proposals will be exempt.

5.2 In order to define the forms of development which will trigger the application of the Safeguarding Policy a threshold in respect of the size and nature of the development will be used (see 'Policy MSA 2.'⁽⁸⁾ below).

Policy MSA 1: Exempt surface development

Classes of planning application for surface development which are exempt from Safeguarding Policy are:

- All extensions and subdivisions of existing buildings;
- Infilling⁽⁹⁾ development, except for proposals within 250 metres of an existing permission for mineral extraction/waste disposal;
- Miscellaneous minor applications (e.g. Walls, gates, accesses);
- Individual residential caravans for a period of less than 5 years;
- Amendments to previously approved applications and applications for consent in relation to reserved matters already permitted in outline.
- Changes of use.

Question - MSA 1: Exempt Surface Development

Do you agree or disagree? Is there an alternative approach which would be more appropriate?

Minerals Resource Assessment

5.3 MSAs have been defined using the best available geological information, including the BGS resource maps. These show the extent of inferred mineral resources, that is, those mineral resources which can be defined from available geological information⁽¹⁰⁾ Historic and current mineral permissions account for 17% of this area. The majority of the remaining 83% have neither been evaluated by drilling or other sampling

8 Adapted from The Bedfordshire and Luton Minerals and Waste Local Plan (BLMWLP) (adopted in 2005) Policy M4 concerning Protection of Mineral Resource/Mineral Consultation Areas. This Policy was saved by a Direction from the Secretary of State on 14th September 2007.

9 Infilling development is defined here as development which fills a restricted gap in the continuity of existing buildings where the site has existing buildings adjoining on at least two sides.

10 The surface area of the preferred MSAs set out in this report total 219,286 Km². Of this, 17% (37,669 Km²) is covered by historic and current mineral permissions.

methods, nor had their technical properties characterised, on any systematic basis. The inferred boundaries shown on the MSA maps accompanying this document are, therefore, approximate. The viability of any mineral present beneath the land concerned will not generally be apparent until it is assessed in response to a possible risk of it being lost to other development. Once triggered, MSA policy provides an opportunity to assess the viability of these mineral resources, and therefore it would seem appropriate that permission is withheld until further site specific geological survey data is obtained by the minerals planning authority. This information could be obtained by either:

- Making it the responsibility of the applicant to verify what mineral is present, quality and quantity of the reserve, and the overburden to reserve ratio, and provide that information to the Planning Authority (Minerals Resource Assessment); or
- Making it the responsibility of the Planning Authority to verify what mineral is present, quality and quantity of the reserve, and the overburden ratio (Minerals Resource Assessment).

5.4 Given that the applicant / developer will benefit from any planning permission, it would seem appropriate that the applicant should provide this information. The MPA will then assess the information provided, and it may fall on the mineral industry, or professional consultants to analyse it.

Policy MSA 2: Mineral Resource Assessment

Development proposals within a Mineral Safeguarding Area (that are not exempt under Policy MSA1) must be accompanied by a Minerals Resource Assessment undertaken by a suitably qualified professional, which establishes through site specific geological survey data, the existence or otherwise of a mineral resource of economic importance (including the type, quality, and quantity of the reserve, and overburden to reserve ratio).

Question - MSA 2: Mineral Resource Assessment.

Do you agree or disagree? Is there an alternative approach which would be more appropriate?

Consideration of proposals for surface development within an Mineral Safeguarding Area

5.5 Once site specific geological information is obtained, the Local Planning Authority (LPA) can decide what is the most appropriate course of action. This action will vary according to the quality and quantity of the mineral that would be recovered; the practicability of extraction, and the environmental impacts of mineral extraction. For instance, the verification of an economic deposit may present the opportunity for prior extraction of minerals in conjunction with the proposed surface development so as to avoid sterilisation. Such instances may be of economic advantage to developers, since the extraction of mineral could provide a feed stock for the development, significantly reducing costs associated with importing aggregates. However, prior extraction will rarely be an attractive proposition for a developer/applicant, or surrounding neighbours alike. In addition to the potential delay to development, it may be more costly to develop. In recognition of this it is proposed that each application be considered on a case by case basis with reference to Policy MSA 3. (below). Where prior extraction is deemed appropriate, separate planning applications will be required for mineral extraction and the non-minerals surface development.

Policy MSA 3: Surface development within a Mineral Safeguarding Area

Surface development will only be permitted within a Mineral Safeguarding Area where it has been demonstrated that:

- The mineral concerned is proven to be of poor quality via the undertaking of the Mineral Resource Assessment (Policy MSA 2); or
- The development will not inhibit extraction if required in the future; or
- There is an overriding need for the development and prior extraction cannot reasonably be undertaken; or
- The mineral can be extracted prior to the development taking place.

Where it has been determined that it is necessary for the development to take place, and that the mineral is considered to be of a sufficient quality and quantity etc, the mineral planning authority will seek prior extraction of that mineral subject to:

- The size and nature of the proposed surface development;
- The quality and quantity of the mineral that would be recovered;
- The practicability of extraction;
- The environmental impacts of mineral extraction;
- The use of the resources extracted to supply the development concerned.

Question - MSA 3: Surface development within a MSA.

Do you agree or disagree? Is there an alternative approach which would be more appropriate?

6 Implementation and monitoring

6.1 This Chapter now considers the parties and mechanisms involved in the implementation of the objectives and policies. Planning indicators are proposed which can be used to measure the success of MSA policies quantitatively.

Implementation

6.2 It is recognised that spatial planning will need to be delivered through a variety of processes, tools, and activities. Non minerals planners will have a key role to play in the implementation of these policies since they will be responsible for determining planning applications that fall within land subject to MSA policy. To this end workshops will be held for non-minerals planners in the three Councils to educate them about MSAs, and how to implement the policies set out within this document.

6.3 Other parties on whom MSA policies rely for its implementation include:

- The development industry - who seek to develop land subject to MSA policy, and who will be required to undertake site specific geological assessments if/when MSA policy is triggered.
- The mineral industry - who hold detailed local geological knowledge / and who will help us refine resources boundaries if necessary.

Monitoring

6.4 The delivery of mineral safeguarding will be reported in the Annual Monitoring Report. The Council's Development Control computer systems will be used to monitor those applications within the boundary of a MSA. To assist with this indicators have been developed against which policy use can be assessed. These are set out in 'Table 2' below:

Table 2 MSA monitoring indicators

Indicator	Target	Reason	Relevant policy	Monitoring frequency
Number of applications for surface development within an MSA received by the Planning Authority which exceed the threshold set out in Policy MSA 1.	NA	To monitor the number of applications for surface development within the area of an MSA.	Policy MSA 1	Annual
Grant of permission within an MSA without site specific geological assessment.	0%	Applicants will be required to obtain site specific geological survey data to establish the existence or otherwise of a mineral resource of economic importance. Proposals for surface development within an MSA will not be determined until this information has been received by the MPA.	Policy MSA 2	Annual
Automatic refusal of surface development within an MSA	0%	Mineral Safeguarding is the process whereby the presence of a viable mineral deposit under land subject to interest for surface development is taken into account in deciding whether the development	Policy MSA 2	Annual

Indicator	Target	Reason	Relevant policy	Monitoring frequency
		proceeds or not. The presence of an MSA is not in itself grounds for refusal, and therefore no application will be refused just because it occurs within an MSA.		
Applications for surface development within an MSA determined prior to the receipt of site specific geological survey data by the Planning Authority.	0%	Applicants will be required to obtain site specific geological survey data to establish the existence or otherwise of a mineral resource of economic importance. Proposals for surface development with an MSA will not be determined until this information has been received by the MPA.	Policy MSA 2	Annual
Grant of planning permission following the receipt of site specific geological data, with prior extraction of the underlying mineral.	NA	Mineral Safeguarding is the process whereby the presence of a viable mineral deposit under land subject to interest for surface development is taken into account alongside other material considerations in deciding whether the development proceeds or not. Proposals will therefore be considered on a case by case basis.	Policy MSA 3	Annual
Grant of planning permission following the receipt of site specific geological data, without prior extraction.	NA	Mineral Safeguarding is the process whereby the presence of a viable mineral deposit under land subject to interest for surface development is taken into account alongside other material considerations in deciding whether the development proceeds or not. Proposals will therefore be considered on a case by case basis.	Policy MSA 3	Annual
Refusal of permission following receipt of site specific geological data.	NA	Mineral Safeguarding is the process whereby the presence of a viable mineral deposit under land subject to interest for surface development is taken into account alongside other material considerations in deciding whether the development proceeds or not. Proposals will therefore be considered on a case by case basis.	Policy MSA 3	Annual

6.5 In addition to the above indicators, all proposals for development within a MSA which are not exempt under Policy MSA 1 will need to be accompanied by a site specific geological survey. This information will enhance our understanding of the quality, quantity and location of mineral resources of economic importance within the Plan area, and may facilitate revisions to the areas and boundaries of MSAs set out in this report. It is likely that the Minerals and Waste Local Development Framework will be reviewed within five years of its adoption, and this could include a review of the MSA policies, and the areas of land subject to this policy.

Question - Monitoring Indicators

Do you agree or disagree with the monitoring indicators set out above. Are there alternative indicators which would be more appropriate?