



**Nottinghamshire
County Council**

Nottinghamshire Minerals Local Plan

Background Paper

Building stone

January 2012



Purpose of background paper

This background paper summarises the evidence used to identify the main planning and environmental issues that surround future building stone extraction and what reasonable options exist for making adequate provision in the new Minerals Local Plan.

Other background papers supporting the Minerals Local Plan

- Aggregates - estimating future aggregate requirements to 2030
- Aggregates - sand and gravel, options for meeting shortfalls
- Aggregates - Sherwood Sandstone, options for meeting shortfalls
- Aggregates – Limestone (crushed rock), options for future provision
- Alternative aggregates
- Archaeology
- Biodiversity
- Brick clay
- Coal
- Development management policies
- Gypsum
- Hydrocarbons – oil and gas
- Industrial dolomite
- Landscape character
- Minerals safeguarding
- Silica sand

The Government launched its consultation on the draft National Planning Policy Framework on the 25th of July 2011. This proposes to replace nearly all existing Planning Policy Statements (PPS) and Minerals Policy Statements (MPS) into a single streamlined and much shorter document. The final NPPF is not expected to be issued until mid 2012 and its contents could change from the draft in response to consultation.

This background paper therefore bases its assumptions on the current national policy guidance but the potential implications of the proposed new guidance are considered where this differs from the current position.

The intention is to revise the background papers as necessary when the new guidance is issued and to assess the implications before the County Council reaches a decision on the preferred approach of the new Minerals Local Plan.

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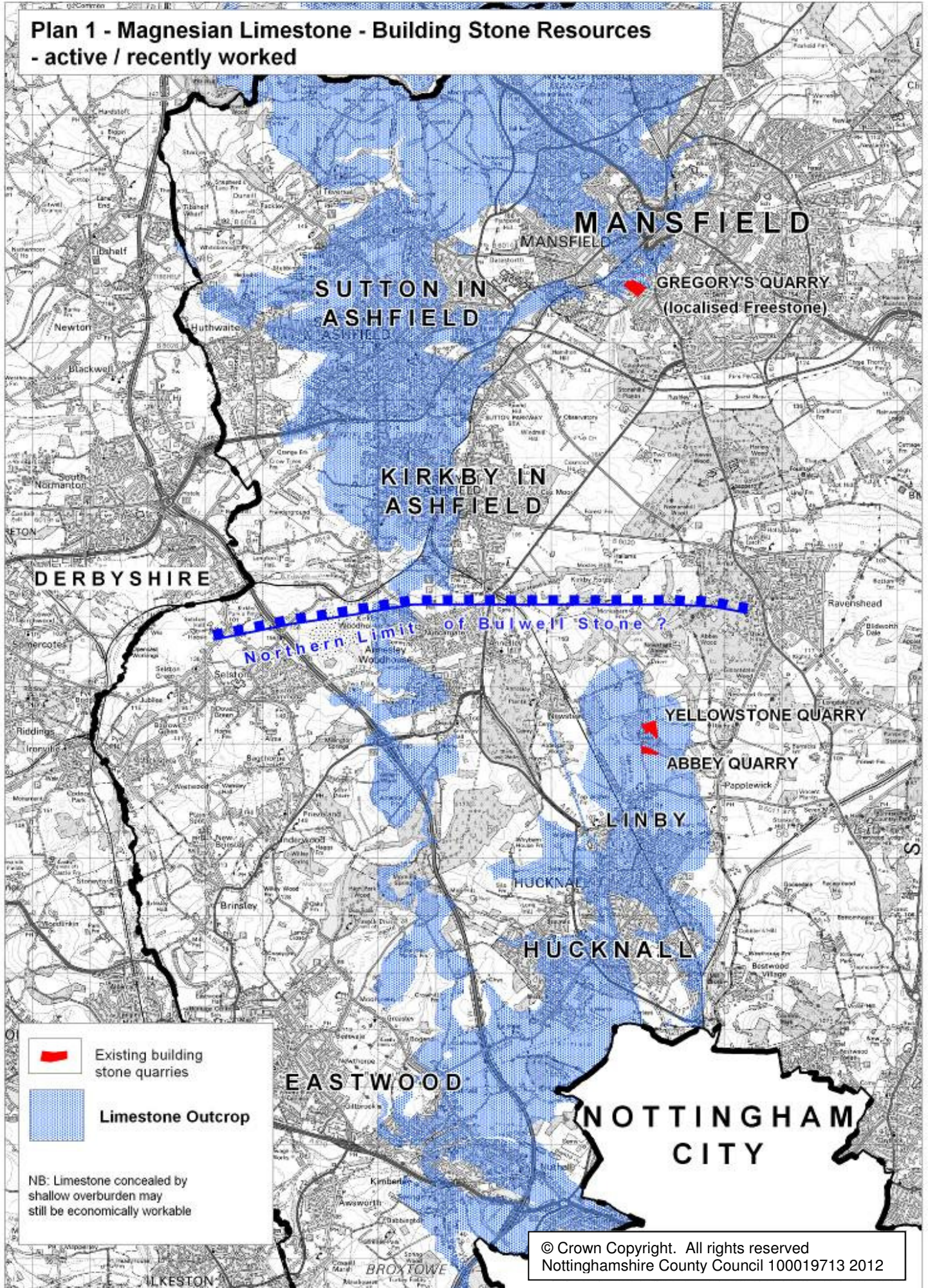
1. Introduction

- 1.1 Building stones are naturally occurring rocks which are sufficiently consolidated to enable them to be cut, shaped or split into blocks or slabs for use as walling, paving or roofing materials in the construction of buildings and other structures, such as bridges and monuments. A wide range of rock types can be used as building stone, including limestone, sandstone, slate and granite. The suitability of stone depends not only on the strength and durability, and commercial considerations such as size of block or slab that can be extracted, but importantly on its aesthetic qualities, such as colour and texture.
- 1.2 Current uses include the repair and maintenance of historic buildings and structures, in new build where the use of local stone helps conserve the traditional character of historic areas or in more contemporary buildings where the use of local materials may be less of an issue.

2. Nottinghamshire's building stone resources

- 2.1 Nottinghamshire's main building stone resource comprises the Magnesian Limestone which occurs as a relatively narrow belt in the west of the county between Bulwell and Worksop. In the past other resources, such as the Liassic Limestones found in the Vale of Belvoir & Triassic Sandstone Skerries worked at Tuxford and Gedling were worked but these poorer quality stones have not been exploited for many years.
- 2.2 The Magnesian Limestone in Nottinghamshire is pinkish yellow in colour and has historically provided an important source of local building material. Use of this stone can be traced back to at least the mid 13th century when it was used in parts of two large building projects - Lenton Abbey and Nottingham Castle. Limestone from the Mansfield area has also been used at Southwell Minster, Ely Cathedral and the lower levels of the Houses of Parliament.
- 2.3 All recent building stone extraction has been within parts of the Magnesian Limestone which exhibit special local characteristics. In the Mansfield area local variations in the limestone have produced high quality 'freestones' – a freestone is any massively bedded rock that can be cut into large blocks and carved. A quarry to the south west of Mansfield has produced small quantities of freestone for over 100 years but production has recently ceased.

**Plan 1 - Magnesian Limestone - Building Stone Resources
- active / recently worked**



- 2.4 Today only the 'Bulwell Stone' is worked. This local material forms the southernmost limits of the Magnesian Limestone outcrop which takes on a different character to the main limestone found to the north (see Plan 1). The Bulwell Stone is impure, coarse grained and flaggy and was used extensively in the past as a local building stone. Many front garden and other walls in the Nottingham area were built of this stone. Records show that in the 19th century there were seven quarries operating in the Linby area and others were active in Bulwell, but now only one quarry remains active

3. Building stone production

National

- 3.1 There are about 300 quarries and mines in England producing building and roofing stone¹. Most are very small compared with, for example, modern aggregates quarries. Ninety percent of these are intermittently worked sites that produce less than 4,000 tonnes per annum. Many produce 200 tonnes or less per annum. These commonly have only one or two employees and mainly serve local or specialist markets. However the remaining 10% of larger sites produce on average 40,000 tonnes per annum and, therefore, account for about 70% of the total annual production of about 650,000 tonnes². These larger quarries may market stone on a regional, national and even international scale.
- 3.2 According to a recent Government research project the variety of local stone available for building has declined considerably over the last 50 years due to the closure of many quarries. The main reasons cited include a fall in demand and the increasing burden imposed by planning and environmental legislation. The last decade has, however, seen a significant resurgence in demand but much of this is now being met from imports due to the lack of local supplies.
- 3.3 Today the largest consumer of building stone is in contemporary new build where matching local materials is often less critical. Demand for new build stone that helps maintain the vernacular styles is increasing whilst demand for the repair and maintenance of historic buildings remains a small but very important sector.
- 3.4 English Heritage and the British Geological Survey are currently carrying out a national Strategic Stone Study. Its aim is to identify all types of building stone that have been used in England and where it was quarried in order to build up a comprehensive database on representative buildings and historic quarries. Nottinghamshire was scheduled to be surveyed in late 2011 but this is understood to have been delayed. If carried out the results may provide further evidence about the potential future use of building stone in Nottinghamshire and

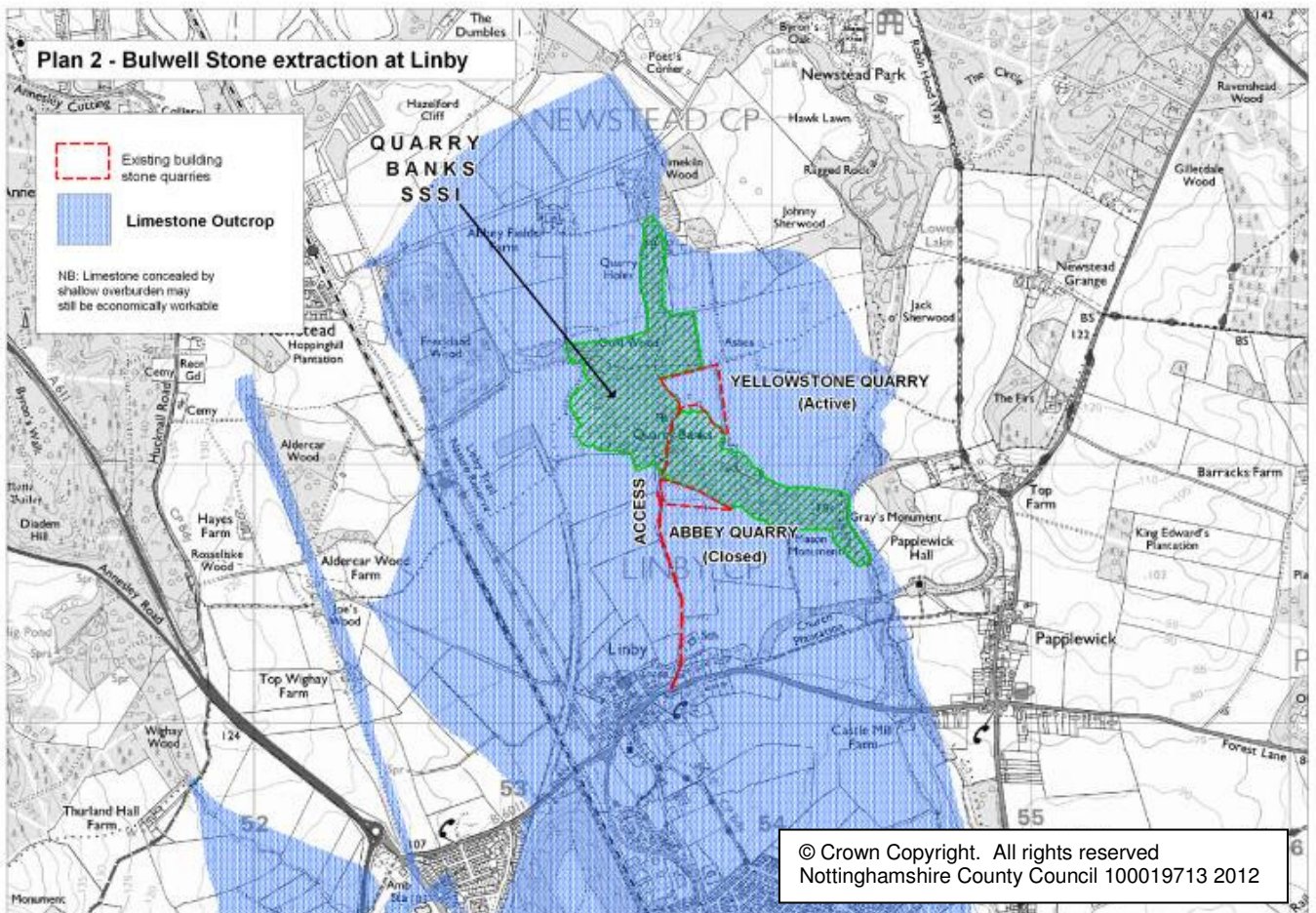
¹ Building and Roofing Stone, Minerals Planning Factsheet, BGS, 2007

² Derived from figures in Planning for the Supply of Natural Building and Roofing Stone in England and Wales: A Summary, ODPM, 2004

where the most suitable resource is in terms of meeting the necessary specifications.

Local

- 3.5 There is no published data on building stone production in Nottinghamshire but recent production has probably been no more than a few thousand tonnes per annum. At Quarry Banks just to the north of Linby, Yellowstone Quarry is now the only active quarry. In late 2010 this quarry changed ownership and is now operated by the Bulwell Stone Company which is intending to produce a wider range of products which could see an increase in sales. Abbey Quarry Linby recently ceased extraction due to reserve depletion. Gregory's Quarry in Mansfield which has been a source of freestone has not been active for some years and the quarry is very overgrown.
- 3.6 There is little information on the current uses of Bulwell Stone but it has a role in maintaining and repairing local historic buildings and walling and is likely to have been used in new buildings to maintain the local distinctiveness. The stone was recently used to build new flood defences along the River Trent south of Nottingham. Its use in the expanding contemporary build market is unknown.



Source: British Geological Survey 2003. Digital Geological Map of Great Britain 1:625 000 scale (DiG Map GB-625) Superficial Deposits data [CD-Rom]. Version 1.10 Keyworth, Nottingham: British Geological Survey. Release date 30-04-2003.

4. Future provision

National and local policy

- 4.1 The main aim of national policy on building and roofing stone is to promote the conservation and use of the nation's building stone industry and resources which form an essential part of our built heritage. This is set out in Annex 3 of Minerals Policy Statement 1 'Planning and Minerals' (MPS1) which is broadly reflected in the current Minerals Local Plan policy which is reproduced below:

Minerals Local Plan Policy M8.2 Non-Aggregate Limestone Provision

Proposals to extract Limestone primarily for building and ornamental purposes will be permitted where it is demonstrated they:

- (a) are needed to maintain traditional, small scale levels of production;**
- (b) the submitted scheme of working and reclamation is environmentally acceptable.**

- 4.2 MPS1 recommends that English Heritage and the industry provide information on building stone resources that should be safeguarded, an issue that is dealt with in the separate background paper on minerals safeguarding. Other issues relevant to Nottinghamshire include the scope to reopen old quarries for small scale extraction that may have become important for their wildlife value. This is because old workings near Linby are within or close to the Quarry Banks Site of Special Scientific Interest. There is also a risk that stone quarries can transform into larger aggregate operations. Yellowstone Quarry is now producing various grades of aggregate from waste limestone that has accumulated over the years. Sales are, however strictly limited by planning restrictions on lorry movements due to the poor access.

Nottinghamshire - future provision of building stone

- 4.3 Nottinghamshire's permitted reserves of Bulwell Stone have not been assessed but are not likely to amount to very much. The future extraction prospects at Gregory's Quarry are unknown although reserves are likely to be very limited and the prospect of extraction resuming looks doubtful. However, planning permission will not lapse until 2042. The level of uncertainty and inactivity suggests that there is no purpose in the new Minerals Local Plan assessing options for future provision of this freestone.
- 4.4 Reserves at Yellowstone Quarry are expected to be assessed in the near future by the new owner. Most of the permitted area has been opened up but the depth of reserves is unknown. Abbey Quarry is believed to be exhausted and is being reclaimed. In both cases planning permission to extract mineral expires at the end of 2015. In order to sustain demand beyond 2015 the following three options exist:

- 4.5 First, unless existing reserves at Yellowstone are all worked out by 2015, then the mineral operator is likely to look at renewing planning permission in order to recover what is left within the currently permitted area. How much longer this could extend the life of the quarry will only become clear once the reserves have been assessed.
- 4.6 Secondly both Yellowstone and Abbey Quarries could physically extend laterally which would give either or both quarries the potential to supply stone for many years to come if the first option does not provide sufficient mineral. The main planning issues associated with these two options are the poor road access which can only be resolved by building a new route and the proximity of the Quarry Banks Site of Special Scientific Interest (see Plan 2). The former can only be resolved by constructing a new route which is only likely to be viable if the new owner can secure sufficient reserves to justify the necessary investment. In terms of impact on the Quarry Banks SSSI future quarry reclamation schemes could provide an opportunity to add to the current value of this area.
- 4.7 The third option would be to develop one or more new quarries. To date no potential sites have been put forward, but as the Bulwell Stone outcrop is quite extensive, it is not unreasonable to conclude that environmentally suitable options for developing one or more small scale quarries could exist. In practice one quarry should be capable of meeting demand, albeit there could be issues of limiting production to one supplier. This could justify two quarries if environmentally suitable sites become available.
- 4.8 In policy terms the current criteria based approach set out in the Minerals Local Plan remains broadly appropriate and could deal with the potential range of circumstances and uncertainties described above.
- 4.9 The fact that the current planning permissions will lapse at the end of 2015 does, however, provide an opportunity to develop a more specific strategic policy against which future proposals can be assessed. This could include the possible allocation of new reserves in a Site Specific Document that will follow the Local Plan. For example the policy could provide guidance on a preference for securing a new access if extraction at Quarry Banks is to continue for the long term.

Promoting building stone resources not currently worked

4. 10 There are estimated to be over 20,000 traditionally built heritage buildings in the County which includes over 4500 listed buildings and 200 churches. The demand for stone to repair, maintain or extend these buildings is unknown, but for those not built out of Bulwell Stone, this demand has to be met from alternative more remote resources which may not always provide an ideal match.

4. 11 To resolve this issue, MPS 1 Annexe 3 advises that extracting small quantities of stone within or close to relic quarries to allow the repair of historic buildings may be acceptable subject to the necessary environmental safeguards. For example many old stone quarries have since become designated wildlife sites which new extraction could harm.
4. 12 To date no commercial interest in developing any of the County's former building stone resources has been expressed, but the possibility of such proposals coming forward during the plan period cannot be ruled out. It may therefore be appropriate for the new Minerals Local Plan to promote such proposals where they will help to secure the long term character of local historic buildings.
4. 13 The issue of safeguarding building stone resources, which is also recommended in MPS1, is considered in the separate background paper on Minerals Safeguarding.

5. Summary of issues and option

- 5.1 In summary the new Minerals Local Plan will need to focus on the following key issues and options:
 - a) The only building stone for which future provision needs to be considered is the Bulwell Stone. Sustaining production of this stone is important because of its widespread local use in historic buildings.
 - b) The change of ownership at Yellowstone quarry could see an increase in production if new markets develop in response to the production of a wider range of products, including aggregates produced out of waste rock.
 - c) Data on production and reserves is very poor but, if no new reserves are released then after 2015 Bulwell Stone production will cease due to the expiry of current planning permissions.
 - d) Potential options for future provision comprise the renewal of the Yellowstone Quarry planning permission, extensions to existing quarries at Linby or one or more replacement quarries.
 - e) Unless further evidence comes forward that strongly favours any of the above options the current criteria based policy approach set out in the Minerals Local Plan may remain appropriate by providing the necessary flexibility against an uncertain planning situation.
 - f) Other building stone resources could be exploited on small scale to repair historic buildings in the future, although there is no evidence to date of any local commercial interest.

Key references

1. **Minerals Policy Statement 1 Planning and Minerals** Department for Communities and Local Government 2006
2. **Nottinghamshire Minerals Local Plan** Nottinghamshire County Council 2005
3. **Building and Roofing Stone Mineral Facts Sheet** British Geological Survey 2007
4. **United Kingdom Minerals Yearbook 2009.** British Geological Survey 2010
5. **Planning for the Supply of Natural Building and Roofing Stone in England and Wales – A summary** Office of the Deputy Prime Minister 2006
6. **Strategic Stone Study**
[http://www.bgs.ac.uk/mineralsuk/mines/stones/eh_project.html]
English Heritage and British Geological Survey Accessed Summer 2011
7. **Supply of building stones in Nottinghamshire** Jason Mordan
Nottinghamshire County Council July 2011