

**CUMBRIA MINERALS AND WASTE LOCAL PLAN
2015-2030**

**CUMBRIA COUNTY COUNCIL STATEMENT
ON THE FURTHER QUESTIONS FOR**

MINERALS

~ POST HEARING SESSIONS ~

January 2017

Where documents have been referenced in the following text, the *Title* is set out in *italics* and the Submission or Evidence Base document reference follows in brackets, e.g. (LD46).

All documents can be accessed via the Core Document List, located on the Examination web page: http://www.cumbria.gov.uk/planning-environment/policy/minerals_waste/MWLP/Examination.asp

Alternatively, all Submission documents can be accessed on the Submission version web page: http://www.cumbria.gov.uk/planning-environment/policy/minerals_waste/MWLP/submissiondocuments.asp

And all Evidence Base documents can be accessed via the Evidence Base web page: http://www.cumbria.gov.uk/planning-environment/policy/minerals_waste/MWLP/EB.asp

Part A: 29 November 2016

Inspector's Opening and Introductions

Questions

Legal Matters

Matter 1a: Duty to Co-operate

1. **(Qu 2 M&Is) Duty to Co-operate – s33A Planning and Compulsory Purchase Act 2004 – regarding strategic matters, to engage constructively, actively and on an ongoing basis to maximise the effectiveness of the preparation of the Plan.**

What criteria did the Council use to determine whether a minerals matter was strategic?

As set out within the *Statement of Compliance with the Duty to Co-operate* (SD40), Section 110 of the Localism Act requires Planning Authorities when preparing Local Plans to 'engage constructively, actively and on an on-going basis' with other local planning authorities, County Council's and other prescribed bodies¹ in 'maximising the effectiveness' with which plans are prepared, so far as this relates to a 'strategic matter'.

'Strategic matters' include sustainable development or use of land having a significant impact on at least two planning areas; and within two-tier areas they include 'county matters', i.e. minerals and waste development. The NPPF advises that provision of minerals and waste management are strategic priorities. As such, the Council assumed that all matters relating to minerals and waste development were strategic.

However, strategic locational policy guidance was provided for certain minerals that are important for particular industries or purposes, and to ensure a steady and adequate supply of these minerals.

Gypsum - the gypsum deposits that are currently being worked in the Long Marton/Kirkby Thore area, have a national market, supplying plaster and plasterboard for house and other building projects. Although output from the mine at Birkshead has slowed due to the recession, this industry could pick up significantly at any time, facilitating the UK's pro-growth agenda. Therefore, identifying a successor to the mine as a strategic allocation is important.

Brick-making mudstones – the brickworks near Askam-in-Furness uses material from the adjacent mudstones quarry, which works the Skiddaw Group shales; although the Skiddaw Group outcrops elsewhere in the county, there are only limited outcrops of shale suitable for brick making. The brickworks provide a specialist service in the production of traditional pressed, clamp and handmade facing bricks and pavers, capable of matching those used in the past and required for many important building projects for Listed Buildings and in Conservation Areas.

¹ Prescribed Bodies are defined in Regulation 4 of the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended)

Slate – Kirkby is the only slate quarry operating outside the Lake District National Park, working the blue/grey Wray Castle formation. Its products have a local market, helping to maintain traditional building styles, a regional and national market, for construction, architectural, landscaping and aggregate uses, and an international market, often for prestigious buildings. The quarry provides a significant contribution to the local economy (c£4 million), employing around 150 staff, the majority of whom live locally.

HSA/VHSA - these comprise a specific type or quality of aggregate that has a distinct and separate market of regional and national significance. Thus a separate landbank has been calculated (consistent with NPPF paragraph 145) and it was considered that a policy approach for security of HSA/VHSA supplies was required.

Sand and gravel in SW Cumbria - there are only two sand and gravel quarries in the area covered by Barrow Borough, South Lakeland District and Copeland Borough Councils. Barrow and Copeland districts both contain market areas requiring aggregates for ongoing development and potential major infrastructure projects, and planning permissions for both of the sand and gravel quarries in the south west of the county expire towards the end of the Plan period. The planning permission for Roosecote Quarry in Barrow expires in 2029, and that for Peel Place (in the Gosforth/Holmrook area) in 2025; additional areas for working in the future have been proposed by operators of both quarries.

To what extent have elected members of the various Councils been involved?

Within Cumbria, Members at both Cabinet and full County Council level have agreed the Local Plan format and contents. The Leader of the Council was particularly involved with the radioactive waste chapter; the various incumbents of the Environment Portfolio have usually had significant involvement with development of the Plan; there have been irregular, cross-party Member Steering Group meetings to discuss the Plan's progress and content.

Within the Cumbria District Councils, a presentation on the Cumbria Local Plan was made to Copeland Councillors in September 2015, prior to their decisions on a consultation response. It is a matter for the District Council and National Park officers whether a DtC meeting or consultation can be responded to in accordance with delegated powers, or if it is a decision to be taken by one of their relevant committees, Cabinet Member, Cabinet or full Council - this is usually stated in any response.

Within the other Local Authorities with whom Cumbria engage on strategic matters, the full extent of Member involvement with consultations, letters or meetings is not known; it is assumed that officers in those Authorities follow their own protocols on whether responses to Cumbria need to be referred to their own Councillors. Usually, other Authorities who are seeking a response from Cumbria on their statutory documents (such as North Yorkshire's Local Aggregates Assessment), state that this has been through their Executive process.

Mineral Products Association (MPA) has raised issues as follows (representation 017; M&Is response) which I should like to discuss:

A *Statement of Common Ground* (ED40) between the County Council and the Mineral Products Association has now been agreed with regards to the Duty to

Co-operate in relation to industrial minerals and building stone. The main points from this are set out in the answers below. The position has been agreed between Cumbria and the MPA and thus it is considered this matter has been resolved.

a. Does the duty arise with respect to Cumbria's industrial minerals and building stone products?

The themes 'movement of mineral products across administrative boundaries', 'minerals supply and safeguarding' and 'nationally important minerals' formed part of the basis for discussions under the DtC, as set out in the *Statement of Compliance with the Duty to Co-operate* (SD40) – this would encompass all minerals.

b. If so, has the duty been fulfilled and in what way?

The duty has been fulfilled. The County Council works closely with adjacent minerals authorities - the Yorkshire Dales National Park Authority, Lake District National Park Authority, North Yorkshire County Council, Dumfries and Galloway Council, Lancashire County Council, Northumberland County Council and Durham County Council, over the future of their quarries and the movement of minerals between administrative boundaries.

The above Authorities were invited to comment on all aspects of the Plan during each consultation stage. A number of other Local Authorities were also contacted regarding the development of the Cumbria Minerals and Waste Local Plan. These are listed in Appendix 1 of the *Duty to Co-operate Statement of Compliance* (SD40) and set out below. This provided an opportunity for Authorities to comment on all minerals issues, including any relating to industrial minerals and specific building stone products.

Questions were asked of, or discussions held with, the following Local Authorities regarding minerals:

- Association of Greater Manchester Authorities (on behalf of Bolton, Bury, Manchester City, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, Wigan)
- Cheshire East
- Cheshire West and Chester
- Dumfries & Galloway
- Durham
- Lake District National Park Authority
- Lancashire (also on behalf of Blackburn with Darwen)
- Merseyside Authorities (on behalf of Halton, Knowsley, Liverpool City, Sefton, St Helens, Wirral, West Lancashire)
- North Yorkshire
- North York Moors National Park Authority
- Northumberland
- Northumberland National Park Authority
- Warrington
- York City
- Yorkshire Dales National Park Authority

Contact may have been at regional meetings (such as the North West AWP or North East Policy Officers Group) or via consultation - either theirs or ours (such as North Yorkshire's Local Aggregates Assessment).

More specific meetings and detailed discussions in relation to industrial minerals and building stone have taken place with North Yorkshire County Council, the Yorkshire Dales National Park Authority and with the Lake District National Park Authority. No strategic cross boundary issues were identified as a result of these discussions.

Historic England has also been invited to comment on all aspects of the Plan during each public consultation, including any minerals issues relating to specific building stone products (used extensively in conservation work); they would be less likely to comment with regard to industrial minerals.

The minerals industry has been consulted at every stage of Plan preparation. This includes operators, members of the BAA and MPA, and members of the AWP. The operators are not all local and, therefore, could have picked up on national issues if they felt that this was relevant. At no stage during the preparation of the Plan have concerns regarding the DtC been raised by the industry in relation to industrial minerals or specific building stone products.

In a less direct way, i.e. via consultation on the Local Plan, the following have also had the opportunity to express an opinion on all cross-boundary strategic issues relating to minerals, including industrial and building stone products:

- Allerdale
- Barrow
- Carlisle City
- Copeland
- Eden
- South Lakeland
- Cumbria LEP
- Cumbria LNP
- CAA
- Highways Agency
- Marine Management Organisation
- National Grid
- utility providers

Therefore, the County Council consider that the Duty to Co-operate has been fulfilled in relation to industrial minerals and building stone products.

c. With respect to the National Planning Policy Framework (NPPF) paragraphs 178 to 181, has the Council co-operated on all cross-boundary strategic issues relating to industrial minerals and building stone products?

Yes, Cumbria County Council has undertaken constructive and active engagement with other Local Authorities and the prescribed bodies, in compliance with the Duty to Co-operate and paragraphs 178 to 181 of the NPPF, as outlined in the *Statement of Compliance with the Duty to Co-operate* (SD40). See also response to b. for further information.

d. Has the Plan been positively prepared in this regard as per NPPF paragraph 182 (1st bullet)?

Yes. The Plan meets the 'positively prepared' requirement of NPPF 182 by being based on a robust evidence base that considers mineral supply and consumption for all minerals, including industrial minerals and building stone products.

National Parks

- 2. (Qu 6 M&Is) The geographical area over which the Plan will take effect should be established to give certainty to developers, residents and others. Would the Council therefore make enquiries of the Lake District National Park Authority and Yorkshire Dales National Park Authority to ascertain what their intentions are with respect to adoption of the MWLP in the relevant extension areas?**

The following paragraphs are extracts from correspondence between Cumbria County Council and the two National Parks. The full responses can be found in document *Discussion on policy approach within new National Park areas* (ED42).

"The Lake District National Park Authority is currently reviewing its Local Plan. The estimated adoption of the new Local Plan is December 2018; the Cumbria MWLP will be adopted in the meantime. It is the Authority's view that in the context of the National Park extension area, we will have regard to the Cumbria MWLP for the purposes of fulfilling our planning functions until such time as the new Lake District National Park Local Plan is adopted."

"The Yorkshire Dales National Park Authority would welcome the new Plan continuing to cover the new Yorkshire Dales National Park extension areas (Lune Valley, Mallerstang, northern Howgills and Orton Fells). This would bring local planning policy up to date and across the new boundaries. We would then adopt the Plan where it applies in the new extension area.

We would also have regard to the specific National Park statements in NPPF as material factors in addition to the Local Plan, if they became applicable. This is the approach we intend to take with the emerging Eden Local Plan, which is also currently undergoing examination.

Adopting the new Cumbria M&WLP would give the new National Park up to date planning policy coverage and allow time to consider the future options for reviewing minerals and waste policy, either as part of a single, future park-wide Local Plan or otherwise."

Note: The YDNPA Local Plan (2015-2030) examination hearing sessions took place in July 2016. As a result of the matters and issues discussed at the hearings, the Authority was required to carry out some further work. This has now been completed and was the subject of a public consultation, which closed on 23 November. The Inspector has considered any representations received in response to this consultation, and issued his final report. The YDNPA resolved to adopt the Yorkshire Dales Local Plan on 20 December 2016. There is currently no Local Plan review in YDNPA's Local Development Scheme, but the LDS will be revisited in 2017, once their Local Plan is adopted.

Should the MWLP provide some explanation of the boundary changes so as to provide clarity of its geographical scope and avoid potential confusion?

Yes, some text has been drafted in collaboration with the two National Parks, and will be placed into the Plan's Introduction – see Main Modification MM1a. The map added as Appendix 2 of Cumbria's response to the *Matters & Issues* (ED17) will also be added to the Plan as Appendix 1 - see Main Modification MM1b.

Does the Policies Map reflect the changes to the National Park boundaries?

No. The boundary changes had not come into force during the consultation on the Publication version of the Local Plan. As the Cumbria MWLP will be the minerals and waste policy document in force until the two National Parks adopt their own Local Plans to cover the new areas, it is not intended to change the boundaries now on the Policies Map. However, the new areas will be identified on Part 1 of the Policies Map and inserts E and F - see Main Modification MM1c.

Once the two National Parks do adopt their own Local Plans in the new areas, the annual monitoring process should trigger a partial review of the Cumbria MWLP or a covering note for the Plan.

Do any of the site allocations include land within the new boundaries?

No.

Matter 1b: Other Legal Matters

Participants' issues

- 3. Any other legal issues that participants wish to raise will be discussed at this stage.**

Soundness Matters

Matter 1: Vision, Objectives and Overall Strategy

- 1. Should the overall strategy and/or objectives refer to self-sufficiency?**

Whilst Cumbria is a producer of nationally important minerals, such as very high specification aggregates and gypsum, the county is currently mostly self-sufficient for those minerals that can be worked from its own resources. With regard to wastes (excluding radioactive wastes), Cumbria mainly exports its small volume of hazardous waste arisings, as the county does not have the facilities required for its management, but imports other waste streams for which it does have facilities.

To reflect the continued aim for net self-sufficiency, explanatory text has been added to Strategic Objectives 4 and 5 – see Main Modification MM4.

Participants' issues

2. **Any vision/objectives/overall strategy issues that participants wish to raise will be discussed at this stage.**

Matter 3: Minerals Strategy

Requirements and Provision

3. **(Qu 24 M&Is) It is important that the Plan gives a clear indication of the scale of minerals provision likely to be required over the Plan period and explains how that requirement will be met. Given the importance of minerals provision, does this warrant a policy of its own, separated from safeguarding? Should Policy SP7 be split into two separate policies, one for provision and one for safeguarding?**

Scale of minerals provision is discussed in the responses to Q4 to Q7.

In the *Core Strategy* (LD244), adopted 2009, there were two separate policies – CS13 Supply of Minerals and CS14 Minerals Safeguarding; in the first version of the Local Plan (Feb 2013) these two policies were combined into SP9 Minerals provision and safeguarding (now SP7). The reason for combination was that a significant review of these two policies was required, reflecting the new requirement for Local Aggregates Assessments, the removal of references to the RSS, the addition of mineral provision/safeguarding discussed in the Repeated Site Allocations Policies examination and to delete repetition.

During discussion at the Hearing sessions, it was agreed that Policy SP7 be split again, into two separate policies - one for provision (SP7) and one for safeguarding (SP8). See Main Modification MM36.

Aggregates

4. **For aggregates, whilst both the landbank and the Local Aggregates Assessment (LAA) will change over time for each aggregate, there should be an indication of what the current requirement is and, based on that figure and current reserves, what each landbank is. A suggestion would be for the Plan to state what these figures are at present, whilst stating that they will change according to whatever the latest LAA/land assessment says. The text could explain the basis for the current assessment and indicate how it could change in the future. The tables within paragraphs 5.10-5.20 of the 2015 LAA could be incorporated together with some background information. Proposals for a main modification will be discussed at the hearing. If the Council wishes to put forward a suggested modification for discussion that would be welcome.**

To provide context on the link between the Local Plan and the Local Aggregates Assessment, and to provide an indication of minerals sales and landbanks at the end of 2014, an explanatory new paragraph and three new tables, will be inserted following existing paragraph 5.18 – see Main Modifications MM28a and MM28b.

- 5. (Qu 30 M&Is) Should reserve figures for gypsum and an indication of likely requirements over the Plan period be added into Plan paragraph 5.61 to understand what the broad scale of need might be?**

Following the supply of figures for gypsum reserves by British Gypsum, two new paragraphs and a table will be inserted after paragraph 5.61 – see Main Modifications MM30a and MM30b.

- 6. (Qu 32 M&Is) In order to broadly understand need over the Plan period, should a rough estimate of the mudstone landbank for the specialist brickworks be incorporated into the Plan? This could be caveated if appropriate.**

It is still considered that a landbank figure for the brick-making mudstones at High Greenscoe Quarry will not provide any greater weight to commitment or confidence, nor any greater understanding of need for the resource over the Plan period. This is because the brickworks are small scale, specialist brick producers; nothing like the large scale producers that are located near economically viable resources in the Midlands and Home Counties, at whom the 25-year landbank required by NPPF is aimed, and for whom the certain knowledge of future resources will enable further investment. The resource at High Greenscoe is, however, safeguarded as a strategic location and by an Area of Search for the future.

Following discussion at the Hearing sessions, new text will be inserted into existing paragraph 5.64, to provide a rough estimate of the landbank under three different scenarios – see Main Modification MM31.

- 7. (Building on Qus 26 & 33 M&Is) What is the scale of industrial limestone operations in the County? What is the stock of permitted reserves and how long is it likely to last? To understand the potential need for industrial limestone over the Plan period, should an indication of likely requirements over the Plan period be set out in the MWLP, maybe within paragraph 5.65?**

The scale of industrial limestone operations within the whole County is modest. The rough estimate of the permitted reserves of industrial limestone, outside the National Park, is 1.85 million tonnes; all the quarries have an end date of 2042. This figure is based on the returns made by each operator to the annual aggregate monitoring survey that the County Council and Lake District National Park Authority undertake jointly. The survey form asks the operators what percentage of their mineral reserve is allocated by them for non-aggregate uses; it does not ask for volumes. Understandably, not all operators are assiduous in completing this part of the form, as it is not currently the main focus of that survey.

If Shap Fell Quarry gains planning permission, for 5.2 million tonnes that would last circa 7 years, then 90 to 100% of its limestone would be used in the kilns to produce flux for steel-making. Silvertop and Helbeck quarries currently use 5% of their reserves for agricultural uses; Stainton currently uses 5% for paper-making and pharmaceutical uses.

Looking at sales for these four quarries, based on current sales levels, the 1.85 million tonnes could last around 140 years; based on both 3-year and 5-year rolling averages, it could last around 120 years. Up to 2011, the annual aggregates survey was carried out by the (then) NW Regional Aggregates Working Party, so there is no detailed data available to the County Council pre-2011.

Text on the current permitted reserves and how long they may last, as well as the potential for Shap Fell to come back into use, will be added to existing paragraph 5.65 and new paragraph 5.66 – see Main Modification MM32.

The fifth quarry in Cumbria is Shap Beck Quarry, located in the Lake District National Park; it uses around 70% of its reserves for steel/iron making and 5% for agricultural uses. For the Local Aggregates Assessment, the County Council and LDNPA liaise on the output of this quarry for its aggregates; liaison is also undertaken on its industrial minerals production. Based on current permitted reserves and sales figures over the last 5 years (2011 to 2015), there is a landbank of around 10 to 11 years. In discussions with LDNPA, who are currently undertaking a review of their Core Strategy (adopted 2010), there is the potential for them to include an Area of Search at Shap Beck Quarry.

8. (Qu 33 M&Is) The Council's reply indicates that no significant quantities of industrial lime are used for cement primary. The site allocations document for Eden (SD21) on page 215 under "Considerations" indicates that Shap Fell quarry produces lime for the manufacture of cement and steel products. What is the scale of lime production for cement there and is it significant? Does a landbank need to be established for this lime production?

When Shap Fell Quarry was operated by Corus, it is understood that there may have been some lime used to produce cement, whilst the bulk of the limestone was to supply their kilns to make flux for the production of steel. However, as reserves fell and it became obvious that the quarry could not extend laterally, due to constraints of surrounding environmental designations and a gas pipeline, all reserves were directed to steel production.

In 2008, Corus submitted an application to deepen the quarry, to access a further 7 years of resource – there is no possibility of greater resource access. The application was accompanied by an Environmental Assessment, but the Environment Agency and Natural England expressed concern about the findings of the Corus consultant and the lack of detailed data. Discussion between all parties continued until mid-2009, when agreement on the way forward on data gathering and monitoring was reached. In November 2009, after permitted excavation reduced to 298m AOD, as previously consented, Corus stopped pumping water from the quarry floor and a lake, 20m deep in places, has formed in the void. The behaviour of the lake has also been an important part of understanding the ground and surface waters in the data collection process.

Once extraction ceased at Shap Fell in 2009, an alternative source of limestone for the kilns was found from the nearby Shap Beck Quarry (within the National Park). In 2007, Tata had acquired Corus and in September 2010 became Tata Steel Europe Ltd. Tata has continued the import of limestone from Shap Beck Quarry, which is augmented by limestone that is sourced from a number of quarries outside the county (it is understood that sources change and the exact quarries used have not been released to the County Council due to commercial

confidentiality – it has not been possible, therefore, to enter into DtC with the other relevant Authorities). All production at the kilns is sent to Port Talbot Steelworks.

If Shap Fell Quarry were to receive planning permission that would enable it to operate for the long-term, with the potential to diversify back into products for cement production, then a landbank would certainly be required. However, as there is only considered to be a 7-year life left in the quarry (assuming it receives planning permission), and the fact that none of the resource will be used for cement production as it will be directed toward the company’s prime goal of steel making, it is not considered necessary to calculate a landbank for the production of lime at Shap Fell.

9. (Qu 34 M&Is) Whilst it is said that industrial limestone is not used for cement primary in Cumbria it still appears to be a significant requirement for a range of other industrial purposes. To provide certainty should there not be a Preferred Area/Area of Search for industrial limestone and should it not be included within Policy SP7?

Five of the limestone quarries within the whole of Cumbria (CCC and LDNPA) are known to use some or all of their minerals for industrial purposes; others may too, but it is assumed to be on an ad hoc basis.

	steel	iron/ steel	pharmaceutical/ paper making	agriculture	notes
Shap Fell	90-100%	-	-	-	- inactive since 2009 - 7 years resource left
Shap Beck	-	70%	-	5%	- in LD National Park
Stainton	-	-	5%	-	
Silvertop	-	-	-	5%	
Helbeck	-	-	-	5%	

Shap Fell Quarry has only one possible location for future extraction, by deepening the existing quarry; the other three quarries outside the National Park, all produce very small quantities of industrial limestones, though it is acknowledged that this may change over time. It is not considered, however, that their scale of production warrants a Preferred Area/Area of Search for industrial minerals alone; all these quarries are located within the general limestone MSA and, therefore, the MCA. New paragraph 5.66 sets out this situation – see Main Modification MM32.

10. If there is no Preferred Area/Area of Search how is it envisaged that an adequate landbank of industrial limestone will be maintained throughout the Plan period?

Outside the National Park, on current permitted reserves and average sales figures for the last five years, there could be a landbank of around 120 years. Any changes to the current sales or permitted reserves will of course change that figure. However, it is not considered likely that these factors will change enough to warrant the need for any other mechanism to provide a steady and adequate supply of industrial limestone within the Plan period. This will, of course, be kept under review in the annual Authority Monitoring Reports and, to some extent, via the annual Local Aggregates Assessment.

The following questions build on Qus 35-38 and 47-48 M&Is and take into account the MPA's representations (Rep 017).

11. Should the Plan contain more information on the scale and type of building stone production in Cumbria and, at least for the larger producers, an indication of reserves?

The only real 'large producer' is Burlington Stone. Since being granted planning permission in November 2016, Kirkby Slate Quarry now has a permitted area of 111 hectares and permitted reserves that now equate to around 1.4 million tonnes of workable stone/slate. Processing occurs at Kirkby Slate Quarry for all of Burlington's building stone quarries, within and without the National Parks (this excludes their Roosecote sand quarry and Goldmire limestone quarry). Sales from all their quarries are quoted as 100,000 to 110,000 tonnes per annum, in the form of tiles, paving, walling, lintels, construction and landscaping materials, internal polished products and aggregates. In comparison, the next largest building stone quarry is 8.5 hectares, at Flinty Fell Quarry.

Excluding Kirkby Slate, the average size of building stone quarry in Cumbria, outside the National Parks, is 2 hectares. The volume of permitted reserves range from 5,000 to 1,000,000 tonnes, though this does not include calculation of waste rock that is often retained on site for restoration, which can range from 10 to 80% of the total extracted. Sales per annum also have a wide range; of the known sales figures, this is between 0 and 10,000 tonnes. For some building stone quarries, only the maximum permitted sales are known, but site monitoring often shows that these maximums are not reached. Of course, low sales can change and in most cases are shown to be rising since the recession, but because of this situation, the majority of planning permissions since 2007 for the building stone quarries are time extensions rather than physical.

In order to provide the context for building stone quarrying in the county, new and amended paragraphs, following existing paragraph 5.72 will be added to the Plan – see Main Modification MM34a.

On page 20 of Cumbria County Council's *Response to Matters and Issues* (ED17) is a table showing building stone quarry outputs and end use. Although, information on reserves and sales at building stone quarries is incomplete, as much data as possible has been added into this table and now forms Main Modification MM34b – *Building stone quarries in Cumbria (outside the National Parks)*. In order to locate the current building stone quarries in Cumbria, they will be added to the Policies Map Part 2 – see Main Modification MM34c.

12. Does the Council accept that the winning, working and processing of building stone in Cumbria is of value to the economy, including production from small scale quarries, whether or not intermittent and on a campaign basis?

The fact that the quarries exist and meet a market requirement confirms their contribution to the economy; they are certainly of value to the Cumbrian economy and are also important for rural enterprise and diversification. In the consideration of applications from small scale building stone quarries, whether

for physical or time extensions, the Development Control & Regulation Committee reports quote paragraph 144 of the NPPF, which:

"...requires great weight to be given to the benefits of the mineral extraction, including to the economy." Furthermore it directs local planning authorities to recognise the small-scale nature and impact of building stone quarries and "the need for a flexible approach to the potentially long duration of planning permissions reflecting the intermittent or low rate of working at many sites". The NPPF also provides a locational steer, noting a preference for the extraction of building stone at, or close to, relic quarries.

- 13. I note the Council's position that there is insufficient information available to designate Preferred Areas/Areas of Search for building stone, and I also note the MPA's position that the Strategic Stone Study (LD249) and British Geologic Survey's (BGS) data provides sufficient information. I would welcome further comments from both the Council and MPA to support their positions. Might it be the case that sufficient information could be available for some stone types but not others, and that areas could be designated for some building stones but not others? Could the Council and/or MPA bring extracts from the Strategic Stone Study or any other survey/evidence relied upon to demonstrate their positions? I note there seems to be some evidence available in the BGS/DETR publication *Cumbria and the Lake District: Resources and Constraints* (LD46).**

The purpose of LD249 is to identify the most significant building stones used in the past and, by establishing where they came from and where there are potential alternative sources, enabling historic buildings and areas to be maintained in the appropriate style. The Council consider that, while a useful background information document, the detail in LD249 is insufficient to identify Preferred Areas or Areas of Search.

PPG describes Preferred Areas for minerals as "areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction" (chapter 27, paragraph 008, Reference ID: 27-008-20140306). Preferred Areas are, therefore, clearly defined areas of known resources, but subject to a lesser degree of precision (compared with Specific Sites) with regard to the definition of the actual site, which may be suitable in principle for development. The information in the Strategic Stone Study (LD249) is not detailed enough to identify Preferred Areas.

PPG describes Areas of Search as "areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply" (chapter 27, paragraph 008, Reference ID: 27-008-20140306). Areas of Search are likely to be more geographically extensive areas, generally defined with a lesser degree of precision than Preferred Areas, and are likely to be characterised by less robust information about the extent and viability of the potential resource. The accompanying online map to LD249 shows point data and is therefore not sufficient to use to identify Areas of Search or Preferred Areas.

When the County Council first received the base mineral data for Cumbria from BGS, a layer for slate was supplied, but no other building stone. Their Resources and Constraints document (LD46) has a section on building stones other than

slate, but none are mapped by their individual properties; so LD46 and the accompanying mapped data on mineral resources, has been used as a starting point to identify Mineral Safeguarding Areas for a number of minerals in the Plan, in line with best practice set out in *Mineral Safeguarding in England: Good Practice Advice* (LD187). The detail for Preferred Areas/Areas of Search would have to be provided by the operator, with their knowledge of their own quarries and the mineral disposition.

For igneous rock (basically granite), LD46 discusses its prevalence within the National Park (uses and quarries), but says that it has no commercial outlet outside the Park. For sandstone, it says: "Quarries are usually small and are often based on resources of only local significance. For this reason, the extent of the resources is not shown on the map." For limestone, it says: "Carboniferous limestones in the Kendal and Kirkby Lonsdale areas have been extensively quarried in the past for local building stone, much of which was used in these two towns. Today three quarries are working the limestone near Orton for building stone (*it's actually two – Pickering and Rooks*). Elsewhere fossiliferous beds of limestone are worked near Ulverston (*Baycliff Haggis*) for decorative 'marble' and ashlar."

The County Council deem that operations are of such a scale that consideration through a planning application is more appropriate. Discussion at the Hearing session did not produce further data that could be used to designate Preferred Areas/Areas of Search for building stone; however, it was agreed that the new table on building stone quarries outside the National Parks, coupled with their location on the Policies Map, would better illustrate the status of the building stone industry in the county – see Main Modifications MM34b and MM34c.

14. In the absence of such designation explain how the Plan provides for a steady and adequate supply of building stone in accordance with Planning Policy Guidance (PPG) chapter 27 and particularly ID 27-008-20140306.

Chapter 27 of PPG explains that Mineral Planning Authorities should plan for the steady and adequate supply of minerals by the designation of Specific Sites, Preferred Areas or Areas of Search. The guidance also explains that, in exceptional circumstances, it may be appropriate for Mineral Planning Authorities to rely largely on policies that set out the general conditions against which applications will be assessed. As demonstrated within the Council's evidence in relation to question 13, the detail required to support the designation of Preferred Areas and/or Areas of Search for all local building stones, does not exist. Therefore, it is considered that such exceptional circumstances exist in Cumbria, which requires the Council to rely on Policy DC12 to enable the steady and adequate supply of building stone. To enhance the reliance on Policy DC12, officers at the Council frequently liaise with operators of the active building stone quarries within Cumbria, to discuss operational issues and the operators' future planning requirements.

It is considered appropriate that the following methods together, ensure the steady and adequate supply of building stones in Cumbria:

- Local Aggregates Assessment annual survey forms
- site monitoring visits

- planning applications, considered under Policy DC12 (and all other relevant policies)
- annual Authority Monitoring Reports
- ad hoc discussions between the Council and operators.

Bearing in mind the unique scale of size, production and operation of the building stone quarries in Cumbria, it is not considered appropriate to allocate Specific Sites, Preferred Areas or Areas of Search. Focus is on small scale extensions to existing sites rather than new sites, though if an operator put a new site forward, it would be considered on its individual merits. As set out in Policy DC12, the sustainability of all proposed sites would take account of:

- need for the specific mineral;
- economic considerations (such being able to continue to extract the resource, retaining jobs, being able to utilise existing plant and other infrastructure); and
- positive and negative environmental impacts (including the feasibility of a strategic approach to restoration);
- the cumulative impact of proposals in an area.

Some of this discussion is set out within the new and amended paragraphs of Main Modification MM34a.

15. Bearing in mind that great weight should be given to the benefits of mineral extraction, including to the economy (as per NPPF paragraph 144 1st bullet) should there be more positive policy support for building stone applications than is provided by DC12?

Policy DC12 is not negatively worded towards building stone applications; it enables all applications outside of Preferred Areas to be considered on their individual merits. The 'great weight' to be given to the benefits of mineral extraction should be applied by the decision maker when balancing the benefits of a proposal against the negative impacts, when assessing the proposal against Policy SP1 of the Plan.

In order to be clear about the positive attitude to building stone quarries, the bullet about them in adopted Policy DC6 was altered in the draft Local Plan's Policy DC12, to ensure that all building stone quarries, not just those used to match vernacular or for heritage, would be provided with a 'hook' for planning applications. See below for changes made:-

DC6: "building stone quarries to meet the need for stone to match local vernacular building, and the conservation and repair of historic buildings"

DC12: "building stone quarries, including their need for stone to match the conservation and repair of historic assets and also for local vernacular building"

For clarity on the policy approach to Areas of Search for non-energy minerals, text has been added into Policy DC12 – see Main Modification MM52.

16. If "need" is to be a criterion within DC12, should "need" specifically include market requirements? If so, how easy is it to obtain reliable and

quantifiable data at County level on the true market requirements for specific stone types? Could this be complicated by the “need” for sub-varieties of stone types? Should a flexible approach be taken to applications and if so what should this be?

Chapter 27 of PPG, and particularly paragraph 10 (ID 27-010-20140306), states that the suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as, amongst other things, need for the specific mineral. PPG does not specify whether this relates to market requirements; however, it could be reasonably concluded that this is the case. Whilst it may be somewhat difficult for the Council to obtain reliable data at the county level, with regards to the market requirements of specific stone types, the onus would be on industry, who should have the data readily available if they have chosen to invest in new development at a site, to provide such data in support of any planning application.

A flexible approach to planning applications is already taken using the adopted Core Strategy and Development Control policies, and this will not change under the MWLP policies. In fact it is considered that clarity on building stone has been achieved by the amendments made between adopted Policy DC6 and MWLP Policy DC12 (see response to Q15).

Building stone is worked in order to meet market requirements where there is a need, i.e. it is not just extracted on a whim. There is a flexible approach in place when determining planning applications for building stones, recognising that some stone characteristics are very specific and localised. Two examples from Development Control & Regulation Committee reports are set out below:

- The type of material produced at Baycliff Haggs is only produced from this quarry. It provides essential dimensional and walling stone to the industry, thereby a clear need for the material has been identified.
- The sandstones within this ridge area vary significantly; the continued operation of these sites, including Scratchmill Scar Quarry, would enable a full range of red sandstones to continue to be available

In order to provide clarity on the flexible policy approach to ‘need’, text has been inserted into existing paragraph 15.4 – see Main Modification MM51.

17. Plan paragraph 5.73 seems to suggest that proposals at building stone quarries where stone is used for the repair of historic assets or local vernacular will be treated differently to those that are not. Is that the intention? Is that justified? If it is justified, should the justification be explained in the Plan?

No, it is not the intention that proposals at building stone quarries, where stone is used for the repair of historic assets or for local vernacular building, will be treated differently to those that are not. All such proposals would be assessed against Policy DC12 and those where stone would be used for the repair of historic assets or local vernacular will be of particular value to the distinctiveness of Cumbria. This could be used by the applicant as a ‘hook’ for the application and may be an added benefit to be used by the decision maker during the balancing exercise, but the proposal will not be treated any differently.

See also response to Q15.

18. Is there sufficient support in the Plan for other stone uses including internal decoration and other stone products? How does the Plan support other potential stone markets that might develop over the Plan period?

All applications, for whatever use of the stone, will be considered on their own merits. 'Building stone' is used generically to cover all uses for building stones, whether for internal decoration or outside walling – this approach also seems to be taken by the operators themselves. Some use the word 'dimension' stone, but others do not. Text to clarify the range of building stones will be added to existing paragraph 15.4 – see Main Modification MM51.

19. What does the stone products/processing industry cover in Cumbria and on what scale and where? Does the industry work with stone both sourced within and outside Cumbria?

Apart from Kirkby Slate Quarry, the stone products/processing industry within Cumbria, outside the National Parks, is modest. There are several building stone quarries that are run as diversification by farmers (e.g. Snowhill, Mousegill) and by other businesses (e.g. Grange, Lambhill) in a rural area; several quarries are also owned by estates (Lowther and Holker).

Snowhill No.1 and No.2, Mousegill and Lambhill extract stone, but it is for the purchaser to process/use themselves; the operator of Grange also runs a small construction business, so some stone is used in the business and some is sold on. None of them deal with stone from quarries that are not their own.

Cumbria Quarrying Services operate four quarries in Cumbria (two on behalf of Lowther Estates); all stone, only from the four quarries, is processed centrally at Bowscar Quarry and they also have a facility on Gilwilly Industrial Estate, Penrith.

Alston Natural Stone Ltd (Hodgson Bros) operate two quarries; all stone, only from their own quarries, is processed at their Bayle Hill site, near Nenthead.

Burlington Stone (part of the Holker Estate) operate two quarries for building stone outside the National Park (and a further five within the Park); all stone, only from their own quarries, is processed at their production unit in Kirkby Slate Quarry.

There are two operators, whose processing operations extend to outside the county. Marshalls Stancliffe Stones operate three quarries in Cumbria; all stone is taken to their sandstone quarry at Locharbriggs, just north of Dumfries, for processing. A recent planning permission allows a shed for processing to be built at their Scratchmill Scar Quarry, for local operations.

Block Stone Ltd operate one quarry in Cumbria; all stone used to be sent out of the county for processing to their sister company, Realstone Ltd, who have three production works for finishing stonework and also for the fixing of stone in Scotland. Realstone was put into administration in May 2016 and the current position is unknown.

Where stone processing is not located on the existing quarry, e.g. Bayle Hill, it is the District Council who has granted planning permission for the facility.

Text to clarify the the policy approach to the stone products/processing industry in Cumbria, will be added to existing paragraph 15.4 – see Main Modification MM51.

20. Bearing in mind NPPF paragraph 28, which encourages local plans to support rural enterprises, should there be specific policy support for sustainable stone processing at appropriate quarries?

There are already two stone processing units at operating quarries, so there is no barrier to sustainable stone processing at appropriate quarries. Any application submitted would be judged on its own merits, against all relevant planning policies. There are also quarrying operations that support other rural enterprises, such as farm diversification; so again, there is no barrier and any proposal would be judged on its own merits.

Minerals Safeguarding Areas (MSAs) and Mineral Consultation Areas (MCAs)

For the purposes of the hearing sessions, there may be some overlap with the Plan’s safeguarding strategy and DC Policy15 and, therefore, potentially some repetition of discussion, given the interrelationship.

Building Stone

The following questions build on Qus 49-59 M&Is and take into account the MPAs representations (Rep 017).

21. Even small quarries working seasonally/intermittently can add value to the economy and, therefore, can be classed as economically important. If it is considered that building stone is of economic importance, should its safeguarding be re-visited? (I note that Plan paragraph 15.24 states that MSAs were defined for building stone in a previous plan and that the Council’s answer to Qu 56 states that Birkhams quarry was put forward).

The MSA for building stone referred to in the previous Plan was only at Birkhams Quarry. The decision was made to remove this very specific building stone MSA, that was provided by the operator, because it unfairly excluded other building stone quarries in the area, on which there was much less detail available. Building stone quarries, of whatever scale, are considered of economic importance, but it is considered that building stone is already safeguarded, including the resource at Birkhams. Currently, there are no igneous rock building stone quarries outside the National Park, but sandstone building stone quarries fall within the sandstone MSA and limestone building stone quarries fall within the limestone MSA. Therefore, all building stone quarries fall within the Mineral Consultation Area. Clarification on the safeguarding of building stones will be added into paragraph 15.27 – see Main Modification MM55 – and in new and amended paragraphs, following existing paragraph 5.72 - see Main Modification MM34a.

Clarification on the range of minerals encompassed by hard rock (aggregates, high specification aggregates, industrial minerals and building stones), will be added to existing paragraph 5.78 – see Main Modification MM35. The same modification is proposed within the first bullet of the second section of Policy SP7 (now split out into the separate Policy SP8) – see Main Modification MM36.

- 22. Should Birkhams quarry be designated as a MSA? Whilst the quarry lies adjacent to St Bees Head Heritage Coast, the BGS's *Mineral safeguarding in England: good practice advice* (LD187) indicates at paragraph 4.2.9 that "safeguarding is not precluded by the presence of national and international environmental designations on the basis that sterilising development does take place in these areas. Defining MSAs alongside environmental and cultural designations will ensure that the impact of any proposed development on mineral resources will be taken into account and weighed against other land use/conservation interests at the time planning decisions are made."**

Birkhams Quarry lies within the existing MSA for sandstone and, therefore, within the MCA. See response to Q21.

- 23. If it is accepted in principle that building stone should be safeguarded, should all quarries and known resources be safeguarded or are there some which are not considered economically important?**

All building stone quarries are considered to be important to the Cumbrian economy; all are safeguarded in the relevant MSA and, therefore, the MCA. The response to Q21 provides further information on the approach to safeguarding building stone.

- 24. Could the Council explain the building stone entry in the table incorporated into the answer to Qu 51 M&Is where it says "quarries fall within respective MSAs/MCA (sandstone, limestone)"?**

Sandstone building stone quarries fall within the sandstone MSA; limestone building stone quarries fall within the limestone MSA. There are no building stone quarries using igneous rock, outside the Lake District National Park. Therefore, all building stone quarries fall within the Mineral Consultation Area.

- 25. Whilst the Plan indicates that 8 of the 17 building stone quarries produce aggregates as well as building stone, the inference is that the others do not. What is the position with these others?**

Eight of the building stone quarries produce aggregates, often from offcuts when processing stone or from the waste rock that is not of high enough quality to be used in the quarry's finished products. The other nine quarries do not produce aggregates from their waste; often their waste rock is stored on site and will be used to restore the site, progressively or in the future. To provide clarity on the uses of building stone waste, a sentence will be added to the end of existing paragraph 5.72 – see Main Modification MM33.

- 26. For the 8 that do produce aggregates, is all of the building stone resource as well as the aggregate resource included in the MSA/MCAs? I note that the Council's answer to Qu 56 M&Is states that the aggregate resource at building stone quarries is generally very small, mostly**

comprising offcuts and waste. Therefore, should it be made clear in the Plan that these quarries are safeguarded for building stone?

Yes, all of the resources are included in the MSA and, therefore, the MCA. The quarries are safeguarded for their current products, but they would also be safeguarded for any different products in the future, should they gain planning permission. See response to Q21.

27. (Adding to Qu 90 M&Is) If building stone falls within limestone and/or sandstone MSAs, should this be made clear in the Plan? Should building stones have their own MSAs given that they have separate, often niche markets and are not included in the aggregates landbanks?

A separate, specific building stone MSA was considered and rejected (see response to Q21 for further information). The detailed information on individual MSAs for each building stone quarry is not currently available, though any resources are safeguarded by the 'general' sandstone and limestone MSAs.

28. Is there interchangeability of resource uses between aggregates and building stone? If so, should the extent of this interchangeability be reflected in the Plan?

No, there is no interchangeability without loss of either aggregates that ensure Cumbria's growth through house and other building projects, or through the loss of high quality, potentially high value, building stone products.

29. If economically important building stone is not to be safeguarded, could the Council provide further robust justification for this?

All building stone is of economic importance; all building stone is safeguarded in the relevant MSA and, therefore, in the MCA. See response to Q21.

Industrial Limestone

30. (Building on Qu 58 M&Is) When considering non-minerals development, the value of the mineral within the MSA should be taken into account and weighed against other land use interests. Industrial limestone may have different considerations to aggregate limestone. It also has its own landbank. Is it possible to identify MSAs for industrial limestone separately from other limestone? If so, should it not be made clear where the different resources lie by identifying different MSAs for each? If this is not possible, should the Plan/Policies Map make clear that the MSAs cover both high purity limestone for industrial use and lower purity limestone for aggregate use or building stone use where applicable?

Differentiating between industrial and non-industrial limestone MSAs would be tricky for all but Shap Fell Quarry. For example, at Stainton Quarry, the industrial grade limestone is deposited under the limestone used for aggregates; at Silvertop Quarry, the stone suitable for industrial use is within the limestone used for aggregates.

Text to clarify this situation will be added to existing paragraph 5.65 – see Main Modification MM32.

Aggregates

- 31. (Building on Qu 90 M&Is) Policy SP7 refers to MSAs being identified for sand and gravel and hard rock sources. However, whilst the Policies Map identifies sand and gravel, it does not indicate what hard rock resources are safeguarded for aggregates use, listing the resources globally as igneous rock, limestone and sandstone. Should this be made clear in the Plan/Policies Map? I note the Council's suggestion to make the relationship between SP7 and the Policies Map clearer and this is encouraged.**

The respective Mineral Safeguarding Areas for igneous rock, limestone and sandstone are intended to safeguard aggregate and high-specification aggregate, industrial minerals and building stone. Clarification on the range of minerals encompassed by hard rock (aggregates, high specification aggregates, industrial minerals and building stones), will be added to existing paragraph 5.78 – see Main Modification MM35.

- 32. (Building on Qu 59 M&Is) High/very high specification aggregates have different values to other aggregates and have their own landbanks. Is it possible to identify MSAs for high/very high specification aggregates separately? If so, should MSAs identify high/very high specification aggregates separately? If the information is too uncertain for this at any quarry, should the Plan/Policies Map make clear that the MSA(s) cover the various grades?**

HSA/VHSA is split between limestones and sandstones. As with industrial limestones, differentiating between uses for minerals within MSAs would be tricky. Clarification on the range of minerals encompassed by hard rock (aggregates, high specification aggregates, industrial minerals and building stones), will be added to existing paragraph 5.78 – see Main Modification MM35.

Participants' issues

- 33. Any other minerals strategy issues that participants wish to raise will be discussed at this stage.**

Part B: 30 November 2016

Matter 5: Other Strategies

Policy SP14

- 34. (Qu 61 M&Is) Please consider NPPF paragraphs 133 and 134 from which it will be seen that there are two tests. Paragraph 133 states that it must be demonstrated that substantial harm/total loss of significance of a designated asset is necessary (my emphasis) to achieve substantial public benefits that outweigh that harm. It is not just a matter of balancing the harms. Paragraph 134 states that less than substantial harm to the significance of a designated heritage asset should be weighed against the public benefits. In order to give Policy SP14 full weight, it will need to be consistent with the NPPF (as set out in NPPF paragraph 215). Could Policy SP14 be re-worded for heritage designations?**

The County Council's Historic Environment team had interpreted the phrase about 'necessary' in a less strict sense, i.e. as necessary/if necessary, not always necessary; this nuance will be taken on board.

In the Council's previous versions of Policy SP14, the points now to be considered for rewording were pretty much present, but changes were requested by Historic England, and we moved away from the NPPF wording in the proposed modification. To aid clarity and ensure consistency with the NPPF, amendments to this policy are set out in Main Modification MM38.

Policy SP16

- 35. Paragraphs 10.6 and 10.7, and Policy SP16 should comply with PPG ID 27-048-20140306 by making it clear that financial guarantees should only be required in exceptional circumstances. Those exceptional circumstances could then be listed. Would the Council re-visit this policy?**

It is agreed that Policy SP16 should be reworded - see Main Modification MM41.

To aid clarity on Restoration Guarantee Funds, and to ensure consistency with Planning Practice Guidance, a new paragraph will be inserted following existing paragraph 10.7 - see Main Modification MM40.

Participants' issues

- 36. Any other strategic issues that participants wish to raise will be discussed at this stage.**

Matter 6: Development Management Policies

DC4 Quarry blasting

- 37. Should there be more flexibility with respect to quarry blasting, particularly as the Plan indicates at paragraph 3.17 that natural variation within the rock mass and other factors are outside the shot firer's control?**

It is considered that there is already sufficient flexibility in the policy. There is no evidence to suggest that higher limits are necessary, and no representations from quarry operators to suggest that peak particle velocity (PPV) of 6mm/s would constrain operations.

By varying a number of criteria, such as charge weight (MIC), burden, spacing, decking, delays, etc., it is possible to change the effects of a blast. For example, higher burden leads to higher ground vibration but lower air overpressure, and, conversely, lower burden leads to low ground vibration but greater air over pressure.

Human response to blasting is subjective, as two people will react differently to the same vibration event. The threshold of perception is around 0.5mm/s and complaints are increasingly likely from accelerations greater than 1.5mm/s. Although this will not cause physical harm, it can cause alarm and distress and give rise to nuisance complaints.

Following discussion at the Hearing session, it was agreed that text should be added into Policy DC4 to ensure its flexibility – see Main Modification MM44.

38. Please provide details of what the British Standard limits are within BS7385 and confirm whether this document is extant and up-to-date.

BS7385-2, Evaluation and measurement for vibration in buildings, Part 2: Guide to damage levels from ground-borne vibration, 1993 - this sets out vibration level thresholds for cosmetic damage (cracking plaster). As it says in paragraph 13.16 of the Plan, the standard sets out a PPV of 15 to 20mm/s for low frequency vibrations. Anecdotally, complaints correlate poorly to the magnitude of a blast. It appears that induced vibration in a building is a more important factor. Induced vibration primarily relates to the frequency rather than magnitude of ground vibration.

If it is necessary to refer to BS at all, the more appropriate, and more recent, BS is probably BS6472-2, Guide to evaluation of human exposure to vibration in buildings, Part 2: Blast induced vibration, 2008 - this relates to human exposure to blast induced vibration. As it says in paragraph 13.16 of the Plan, the standard sets out a satisfactory magnitude of 6 to 10mm/s PPV.

Addition of the reference to BS documents was added in response to a consultation comment by SLDC on the Regulation 18 (Feb 2015) version of the Plan, rather than to show what limits any policy should follow. They noted that the standard limits used are derived from BS7385, but not set by it.

Following discussion at the Hearing session, it was agreed that text should be added into Policy DC4 to ensure its flexibility – see Main Modification MM44.

39. Please provide further justification for departing from the British Standard.

The standard limits used are derived from BS7385, but not set by it. BS7385 relates to something that is not assessed by conventional quarry blast monitoring – vibrographs are not routinely installed in buildings (in the UK). This is because any individual building's response to vibration depends on its construction. For example, the natural frequency of a modern steel framed building is different to

a historic stone built cottage, and the frequency of ground vibration that induces vibration in both those buildings will be quite different.

40. How would the required regression line model work?

A full explanation of regression line analysis is beyond the scope of the MWLP.

The development of a regression line model for a site provides a framework around which the shot firer can design the blast. It is an extension of the method to predict vibration set out in section 4.3 of BS6472-2, Guide to evaluation of human exposure to vibration in buildings, Part 2: Blast induced vibration, 2008. If developed with sufficient accuracy, it will reduce the influence of unknown factors to a minimum.

Regression models are mathematical tools for investigating a bivariate (and multivariate) relationship between variables when it can be hypothesised that one variable depends on another variable (or a combination of variables). In this case, the relationship between instantaneous charge-weight (MIC), ground vibration and (scaled) distance from the blast. The model can be used to predict PPV from a given charge weight at a given distance. Furthermore, it is refined with additional data from shots that are fired; this improves the accuracy of the regression line, thus the confidence provided by the model. It also provides a framework to investigate complaints about blasting, because it can be used to reduce the number of variables that need to be examined to determine why the effects of the blast were greater than would have been predicted.

The best practice and use of regression line models is set out in the academic paper written by Birch W.J., Pegden M. and Stothard P. (2001), "Intelligent Information Management for Improved Blasting Practice and Environmental Compliance", published in Proceedings of the Twenty-Eighth Annual Conference on Explosives and Blasting Technique, Las Vegas, Nevada, February 10 - 13, 2001, International Society of Explosives Engineers, Cleveland, Ohio.

Example, West Brownrigg building stone quarry, application 3/16/9007

"Policy DC2 requires minerals proposals to demonstrate that noise levels, blast vibrations and air over pressure levels would be within acceptable limits. PPG does not provide an assessment framework or limits for blast vibration. Draft Policy DC4 of the emerging Minerals and Waste Local Plan proposes to establish the maximum ground vibration attributable to quarry blasting as peak particle velocities of 6mm/s in any direction at sensitive properties. Regression analysis included in the report (submitted by the applicant) indicates that to reach 6mm/s at the nearest property, 121.6 kilograms of detonating cord would be needed. A typical shot of 8 holes currently fires 825 grams of explosive. The explanatory text of the Policy DC4 notes that 6mm/s is at the lowest end of the range of limits suggested by the now superseded Minerals Planning Guidance (MPG) Notes 9 and 14. The MPGs suggested a range between 6 to 10mm/s at a 95% confidence level measured at sensitive property, with no individual blast to exceed 12mm/s. Based on the results of the monitoring exercise, the submitted report predicts the vibration level from blasting operations with detonating cord at the closest properties would be 0.15mm/s. The regression line model also predicts that the vibration caused by blasting with detonator cord at the MIC used, reduces to under 6mm/s at 35 metres from the blasting location. This would be well within the acceptable levels identified in the above past guidance and in the emerging policy. The effects of the proposed additional blasting techniques would, therefore, lead to minimal additional effects outside the site

boundaries. As such, the use of detonating cord is considered to comply with Policy DC2.”

DC6 Cumulative environmental impacts

- 41. Should the words “where appropriate” be inserted into the policy? On a strict reading, does the wording “Considerations will include” mean that the listed matters have to be addressed for each application? Is this what is intended?**

As with Policy DC2 General criteria, points a. to e. are a non-exhaustive list of considerations that may need to be addressed. For clarification, Policy DC6 will be amended to provide flexibility – see Main Modification MM45.

DC12 Criteria for non-energy minerals development

- 42. Does the designation of an Area of Search provide any presumption in favour of development? Would applications within an Area of Search be treated any differently from those outside a designated area for the purposes of Policy DC12 or otherwise? If not, what is the intended purpose of designating an Area of Search? Should applications within Areas of Search be given more policy support?**

The Areas of Search have been based on areas of known resources, as identified by the BGS Resources and Constraints document (LD46) and for which a future need has been identified. The BGS data is the best information available to define areas where future working may take place, in the absence of more detailed submission on the extent of a resource by the minerals industry.

Applications can come forward outside Areas of Search where borehole evidence has identified the presence of material that was not known to the BGS, or in the case of material for which a need has not been identified in the Plan. In the former case, this can happen in relation to deposits of, for example, sand and gravel, where they are overlain with other deposits, such as peat, leaving the sand and gravel deposit unrecognised by BGS work. Where proposals are put forward for minerals within or outside an Area of Search, the industry would need to submit an application justifying the development, based on qualitative and quantitative evidence, supported by detailed borehole data.

Designation of an Area of Search in the Plan provides stakeholders with an understanding of the areas in which the Authority expect to see future development take place, subject to sufficient information presented to justify extraction in that location. The designation is, therefore, based on assumed presence of material, for there is no qualitative or quantitative information. It is not a presumption in favour of development per se, but a policy position to aid consideration of development coming forward within those areas. Development may come forward outside these areas, but it is considered that there is insufficient geological evidence in support of any designation at the time of preparing the Plan.

Any planning application that may come forward for non-energy minerals development within an Area of Search, would be assessed against the relevant policies and would be subject to the usual to the tests of environmental acceptability.

To provide clarity on the policy approach to Areas of Search, text will be added into Policy DC12 – see Main Modification MM52.

DC13 Criteria for energy minerals

43. Under “Commercial exploitation of hydrocarbons”

- Should criterion “b” include “social factors” to ensure social sustainability is properly considered?

Yes, criterion “b” should be amended to include “social factors” – see Main Modification MM53.

- Should criterion “d” say “appropriate provision” rather than just “provision”, to avoid arguments over what may be considered inadequate provision being said to be policy compliant?

Yes, criterion “d” should be amended to include “appropriate” - see Main Modification MM53.

44. Should the section on “Coal” refer to impacts on communities?

Yes, the first bullet point should be amended - see Main Modification MM53.

45. Are there any other criteria or amendments that are required to ensure that the Policy is sound?

In response to the Inspector’s Q67, Cumbria County Council noted (document ED17) that criterion “a” of “Exploration and appraisal of hydrocarbons” should be amended to include impacts on communities.

In order to more accurately reflect the wording of PPG chapter 27, paragraph 148 (ID 27-148-20140306), the final paragraph within the “Coal” section of Policy DC13 should be amended.

For all changes to Policy DC13, see Main Modification MM53.

DC15 Minerals safeguarding

46. (Qu 68 M&Is) with regard to the MSA notification exemption of temporary development, the Council has stated that “Any mineral likely to be needed during the Plan period will be provided for through the identified Areas of Search and Preferred Areas. There is, therefore, no need to insert a caveat to ensure that temporary development can be completed and the site restored within a timescale that would not inhibit extraction.” How does this negate the need for flexibility? Is it not possible that mineral planning applications might come forward outside identified Areas of Search and Preferred Areas (but within MSAs) that require consideration under Policy DC12 criteria?

Yes, it is possible that mineral planning applications might come forward outside identified Areas of Search and Preferred Areas (but within MSAs) and these would be assessed against Policy DC12, to provide flexibility. The Council’s answer to Q68 of the Matters & Issues was perhaps poorly worded; it was not intended to give the impression that **all** minerals will be provided from within the

Areas of Search and Preferred Areas. Rather, it was to explain that these designations are intended to provide sufficient resources to meet demand over the Plan period, without the need for extraction outside of these designations, within the MSA. Therefore, there is no need for the caveat on temporary development, to ensure it be removed and the site restored, so as not to inhibit extraction.

- 47. (Qu 70 M&Is) As with Birkhams quarry, I should like to discuss further Millom and Barrow slag banks and whether they should be safeguarded in light of paragraph 4.2.9. of the BGS guidance. Additional comments in support of the Council's and other participants' positions are invited.**

The nature and environmental designations, on or adjacent, could be regarded as safeguarding these two slag banks from the type of built, non-minerals development that could sterilise the resource. I would hope that, in the next 15 years, these poor resources do not come to be considered economically viable, nor of greater importance than the amenity value that they currently hold. To provide clarity on the policy approach to slag banks, a final sentence will be added to existing paragraph 15.26 – see Main Modification MM54.

DC16 Biodiversity and geodiversity

- 48. Should more flexibility be introduced into the policy by adding the words "where appropriate", and "any potential" in first bullet?**

To provide flexibility in the policy, text will be amended in Policy DC16 – see Main Modification MM57.

- 49. (Qu 91 M&Is) Should the text to DC16 refer to the NPPF requirement in paragraph 117 and explain how it is being met, drawing on the Council's answer to this question?**

To provide clarity on the policy approach to ecological networks and to ensure compliance with NPPF paragraph 117, two new paragraphs will be inserted following existing paragraph 16.5 - see Main Modification MM56.

DC17 Historic environment

- 50. (QU 73 M&Is) As with Policy SP14, the different tests in paragraphs 133 and 134 should be noted and care taken to ensure consistency, so that full weight can be accorded to DC17. The Council may wish to put forward a suggested modification for discussion at the hearing.**

The County Council has already proposed modifications to this policy, based on the representation received by Historic England. Following discussion at the Hearing session, and to ensure consistency with the NPPF, further amendments will be made to Policy DC17 – see Main Modification MM58.

DC22 Restoration and aftercare

- 51. To what extent will the County Council have control over afteruses? What types of afteruse will come within the County Council's remit and what afteruses will come within the Districts' remit? How does the County Council intend to implement this policy in practice?**

Planning applications for mineral working, waste management and associated development are determined by the County Council, as they are "County Matter" applications under Schedule 1(i) of the Town and Country Planning Act 1990 and the Town and Country Planning (Prescription of County Matters) (England) Regulations 2003. The County Council will, therefore, have control over afteruses whilst a site is classified as an 'active' minerals site.

PPG chapter 22, paragraph 048 (ID: 22-048-20141017) specifies that an active minerals site is:

- one where development to which a mineral or landfill permission relates
- where a condition attached to the mineral permission or landfill permission is in operation
- a single site which is both a mining and landfill site where either or both are operational
- "mothballed" sites which are subject to ongoing restoration or aftercare.

In light of the above, afteruses would fall under the remit of the County Council unless separate planning permission is required from the District Council for the proposed afteruse, e.g. a use that would involve substantial public use. As such cases would be extremely rare, the Council can see no difficulty in the implementation of this policy.

Section 2(1) of the Town and Country Planning Act 1990 sets out that the County Council can impose aftercare conditions "... as the mineral planning authority think fit requiring that such steps shall be taken as may be necessary to bring land to the required standard for whichever of the following uses is specified in the condition, namely:

- (i) use for agriculture;
- (ii) use for forestry; or
- (iii) use for amenity."

For clarification on responsibilities with regard to afteruse and aftercare, two new paragraphs will be inserted following existing paragraph 16.52 – see Main Modification MM61.

52. With respect to Natural England's representation (Rep 022), should Plan paragraph 16.49 be reworded to reflect PPG ID: 27-40-20140306, i.e. should it make reference to restoration enabling Best and Most Versatile agricultural land to retain its longer term capability? Should the reference to Best and Most Versatile agricultural land being restored to a "similar standard" be removed, given that this could allow previously degraded land to be restored to degraded land?

Based on Natural England's response to the Regulation 19 consultation, the County Council had already proposed a modification to this paragraph, as set out below:

"Whilst sites on the Best and Most Versatile agricultural land should usually be restored to a similar standard, though the proposed afteruse need not be for agriculture. In appropriate situations, other uses will be encouraged that contribute to the movement....."

Although that wording doesn't match the PPG text exactly, the Council considered that if land is degraded, it wouldn't still be classed as Best and Most Versatile. Furthermore, there are instances when the required afteruse includes degraded land, such as unimproved grassland², where this is more appropriate within the surrounding area. However, following discussion at the Hearing sessions, further text will be inserted into existing paragraph 16.49, in order to provide flexibility and to be consistent with PPG – see Main Modification MM60.

Participants' issues

53. Any development management matters that participants wish to raise will be discussed at this stage.

Climate change was discussed in the Hearing session, at this stage. The main topic concerned the impact of any development being considered in terms of its contribution to the mitigation of climate change. Four options were discussed and it was decided that the most appropriate place for additional text was within Policy DC13 Criteria for energy minerals – see Main Modification MM53.

SAP4 Areas for minerals

54. Policy SAP4 simply lists Preferred Areas and Areas of Search. Should it state in the Policy what the significance is of these designations to provide policy support for applications coming forward?

The Council consider that the policy would be too wordy if the significance of Preferred Areas and Areas of Search is added in full to the policy itself. However, a new paragraph will be inserted after existing paragraph 18.33, setting out how these allocations will enable a steady and adequate supply of minerals over the Plan period – see Main Modification MM79.

To tie in with this modification, a precis of the new paragraph will be added to Policy SAP4 – see Main Modification MM80.

SAP5 Safeguarding of existing and potential railheads and wharves

55. Rather than simply listing the safeguarded facilities, in order to be effective, should the Policy state that these facilities are safeguarded?

A short, explanatory sentence will be added at the beginning of Policy SAP5 – see Main Modification MM82. To tie in with this, a new sentence regarding the national policy approach to safeguarding facilities/sites will be added to existing paragraph 18.34 – see Main Modification MM81.

Allerdale Sites

AL32 Potential rail sidings

56. The Allerdale site assessment document (SD17) on page 27 indicates that there could be a conflict between this site and the expansion of the adjacent waste water treatment works and that there are existing wind

² Unimproved grassland' means land used for grazing or mowing, which is not normally treated with mineral fertiliser or lime and does not constitute either improved grassland or rough grazing. Unimproved grassland contains a significant presence of sensitive species, indicative of native unimproved grassland.

turbines on site. How is it envisaged these conflicts might be resolved and how might they affect deliverability?

This site and its potential for development of rail sidings, was put forward by the company who proposed development of M28 Broughton Moor for the extraction of coal. They envisaged transporting coal from Broughton to Siddick by conveyor, for onward movement by rail. If this had gone ahead, the rail sidings would have been available, once coal extraction had ceased, for other businesses in the area who may require bulk transport of minerals or waste. Nearby businesses include Iggesund Paper and Indorama Polymers, both of which have bulk imports and can produce significant waste.

If the waste water treatment works to the south expand, as posited by United Utilities, then there are options of downsizing or working round the WwTW to consider, once layouts of both developments are confirmed. The onsite windfarm is a 'temporary' permission, generally lasting around 25 years. At the end of the windfarm's life, the land owner has options to replace with new turbines, to remove all development, to sell the land for rail siding development, etc.

Ultimately, it is a decision for the landowner on whether this site is deliverable for rail sidings in the future. At the point that such a proposal is put forward, conflicts or constraints will be considered in more detail. If this site is never brought forward as rail sidings, this will not make the Plan unsound, as there are no other minerals or waste proposals that are dependent on the sidings provision.

M28 Broughton Moor, Great Broughton

57. (SD17 page 68) It is stated that this area is safeguarded as a shallow coal resource but that the County Council eliminated the possibility of coal extraction prior to a current regeneration scheme. Does this mean that this resource is to be sterilised?

Broughton Moor was originally the site of Buckhill Colliery, which opened in 1873 and closed 1932; the colliery's spoil heap is still a feature of the site. The extent and depth of the coal extraction is not known and there may not actually be any economically significant reserves or, conversely, modern techniques may be able to extract resources that were not accessible in earlier times. The resources here are shallow coal, but that may not mean that access needs to be from directly above. If a proposal came forward in the future for coal extraction at the site, it would be considered on its merits and against all constraints existing at that time.

Site history

In 1939 the Royal Naval Armaments Depot opened here, and was run by the MoD until 1963. A chequered history followed, where it was leased by the Federal Republic of Germany, used by the US Navy to store armaments, and was designated as a NATO storage site. At the end of the Cold War, the site was decommissioned, and finally closed in 1992.

In 2008, the 425 hectare site was bought from the MoD jointly by Allerdale Borough Council and Cumbria County Council for £1; this is because no-one was prepared to spend the money needed to investigate and decontaminate the site. There is a network of defunct narrow gauge rails criss-crossing the site, as well as various sheds and buildings containing asbestos; some sheds have blast

banks round them and it is not known if, or where, there may be heavy metal and/or explosives pollution. The site has been closed to public access for over 50 years and over that time it has developed a unique environmental character with a wide variety of species of plants and animals.

The two Authorities recognise the potential of this site to bring significant economic, environmental and community benefits to the area, contributing to the overarching vision, of a community in which everyone shares the prosperity that is currently only enjoyed in parts of the Borough. The key aspirations are to encourage sustainable long term development, sympathetic to the environment and the characteristics of the site.

A lease agreement for the site was agreed in 2011 with Derwent Forest Developments Consortium, who plan to develop the site in accordance with the Utopia model of eco-friendly living and working. Development of the site has been held up by extensive ground investigations and environmental issues, but planning permission has already been granted for 24 self-build housing plots near the edge of the site. The proceeds from those would help to clean up the remainder of the site.

The sustainable development, which could create 2,500 jobs, would include eco-homes, a visitor attraction, a learning and education centre, renewable energy generation, a festival site and forest. Derwent Forest presents the opportunity to link the popularity of the Lake District National Park with Cumbria's west coast, and to attract visitors and economic activity, making a real and sustained difference to West Cumbria's economy.

Barrow sites

M27 Roosecote sand quarry

58. (Qu 84 M&Is) A discussion of the potential benefits and harms of designating the preferred area at Roosecote will take place, noting in particular representations from Centrica and Burlington Slate Ltd besides those of the Council.

The County Council would wish to retain the allocation of a Preferred Area to the south of the existing Roosecote sand and gravel quarry, as part of the strategy to provide an adequate and steady supply of this mineral over the Plan period. M27 is identified in Policy SP8, as a strategic area for new mineral developments.

Discussion at the Hearing session, centred on the recent work being carried out by Centrica at their gas terminals, adjacent to site allocation M27; this has led to consolidation of gas stores at the north terminal, the closest to M27, which has increased the risks at this terminal. The results of the new safety case for gas storage, being prepared for the Health & Safety Executive, are not scheduled for issue until 2017. Once this report is published, and a decision made on the extent of the incident Effect Zones, the Council can then make an informed decision on how this will affect the Local Plan.

If it was shown that site M27 is completely unavailable for further sand extraction, then the Council would look to the Area of Search (M12) identified on the far side of Rampside Road – this would not trigger a full or partial review of the Plan. If it was shown that site M12 was also completely unavailable for sand extraction, then it is likely that the Council would consider a partial review of the

Plan, though that may only take the form of a public consultation on alternative sites and then an Addendum to the Plan. Of course, the Council would be in discussion with the industry and also look at the results of the latest LAA – both of these will be influenced by financial decisions still to be taken on proposed national infrastructure projects in the county.

A clear and robust monitoring framework has been developed, which would trigger a review of the Plan, if necessary, once the information becomes available regarding the feasibility of the two sites for future minerals extraction. Any review of the Plan could lead to the removal of site M27 or to the consideration of a smaller area, as appropriate.

In order to reflect the current situation at site M27, and to set out the policy approach, a new paragraph will be inserted after existing paragraph 18.26 – see Main Modification MM77.

Carlisle sites

M11 Kirkhouse sand and gravel quarry

59. With respect to any expansion of Kirkhouse Quarry and considering Lakeland Minerals representation (018) should a greater Area of Search be designated? Would designating a greater area provide more flexibility?

A number of representations were received about the Area of Search put forward at this site, during the Supplementary Sites consultation (Oct/Nov 2015).

“The City Council is concerned that the area of search includes large areas of existing woodland. The City Council has concerns about allocating such a large Area of Search, and the lack of certainty about where within this site the additional area for sand and gravel extraction is likely to be located. The Area of Search should be limited to those sites with the most capacity to be accessed from the existing quarry, and exclude the areas of woodland. The proposed site should also seek to minimise impact of additional traffic on the surrounding road network.” Carlisle City

“The proposal is for the inclusion of a large ‘search area’ for minerals and takes in areas that would be better served by improvements to existing roads that would reduce the distance to the A69T and, in particular, the levels of HGV traffic through Milton. On this basis, I would recommend the allocation of the areas immediately west of the existing quarry, but not south of the quarry and east of the Milton–Farlam road.” Cumbria County Council Highways

Following consideration of these representations, a smaller Area of Search was designated by the Council, than that put forward by the operator. This smaller area was identified by both reference to constraints around the site (a flood zone, a pipeline hazard consultation zone and environmental designations) and also by consideration of those areas adjacent to the existing quarry operations, as these would be the better option in terms of sustainability and of expenditure by the operator.

It is understood by the Council that the designated Area of Search may not prove to yield the best mineral once borehole investigation has been completed. At that time, if a planning application is submitted for outside the Area of Search, it

would be considered on its own merits, against all relevant policies in the Plan, including DC12.

Following discussion at the Hearing session, it was agreed that the Area of Search at Kirkhouse Quarry does not need to be enlarged.

Copeland sites

M22 Birkhams building stone quarry

- 60. The Copeland site assessment document (SD20) on page 201 states that because there is insufficient information to develop a comprehensive MSA for all types of building stone in Cumbria, an MSA for one quarry, without others that may be equally important, is not considered to be sound. Please explain why this is considered unsound and why identifying this quarry as an Area of Search would not be appropriate.**

Birkhams Quarry has planning permission for the extraction of building stone until 2030 (time extension of 15 years granted 2015). It is therefore not considered necessary to identify an Area of Search at this quarry, though this will be kept under review in annual monitoring (site visits, AMR) or assessments (LAA).

Birkhams Quarry lies within the sandstone MSA and is, therefore, already safeguarded from non-minerals development. The response to Q21 provides more detail on how safeguarding in relation to building stone will be clarified in the Plan.

Following discussion at the Hearing session, it was agreed that it is not necessary to add an Area of Search at Birkhams Quarry.

Other allocation matters

- 61. With respect to Electricity North West's representation (Rep 003), have their identified assets been added to the relevant minerals allocations in the site assessments documents and has this made any difference to the site assessments?**

Yes, proposed modifications to the Site Assessments document (SD49) include a note of Electricity North West's (ENW) assets. The inclusion of ENW assets has not made any difference to the site assessments, as the identification of the ENW assets does not preclude the allocation of sites for minerals development. The information provided within ENW representation (Rep 003) will be used as an informative for applicants should a planning application come forward.

- 61a. With regard to monitoring, should the Plan be reviewed upon the happening of any specific events with regard to minerals, during the Plan period?**

Yes, during discussion at the Hearing sessions, a number of 'triggers' were identified, that could necessitate a full or partial review of the Local Plan. Several paragraphs detailing this approach, and a table setting out these 'non-policy' triggers, will be added to chapter 17 – see Main Modifications MM66 and MM67.

Participants' issues

- 62. Any allocation matters that participants wish to raise will be discussed at this stage.**

Submission Version Main Modifications

- 63. I will hear any comments on the Council's suggested main modifications within SD48. As set out in the draft M&Is dated 12 October, I consider the main modifications in SD48 to be:**

M10, M11, M16, M17, M18, M19, M21, M22, M23, M26, M27, M29, M30, M31, M32, M34, M39, M40.

The Council agrees with this approach, and the above modifications have been incorporated into the final Table of Main Modifications.

- 64. The Council's Appendix 1 to their answers to M&Is, setting out replacement policies, should ensure that Policy titles match the suggested wording of the Policy (e.g. SP15 "aftercare").**

Noted. Policy titles will be amended to ensure that they match the suggested wording of the policy.

Other Matters

- 65. Given the changes to Government departments, references in the Plan to the "Department of Energy and Climate Change" might, where appropriate, need to be changed to the "Department for Business, Energy and Industrial Strategy".**

Noted. Reference to the "Department of Energy and Climate Change" (DECC) will be replaced with "Department for Business, Energy and Industrial Strategy". Exceptions to this may apply, such as reference to a historic document written by DECC. The required changes will be entered into the Minor Modifications table.

- 66. I will take comments on any other matters that participants wish to raise at this stage.**

Any closing housekeeping matters