

02-01



Response to Officer Queries No.1

Site: Horn Crag Quarry

Proposal: Reopening

Document Reference: 232/5/1—R1.1 - 20230425



Minerals
Waste
Environment

The Mineral Planning Group Ltd.
The Rowan Suite, Oakdene House,
Cottingley Business Park, Bingley,
West Yorkshire BD16 1PE

01274 884599/884699
headoffice@mpgyorks.co.uk

www.mpgyorks.co.uk

Document Title:

Response to Officer Queries No.1

Document Reference:

232/5/1—R1.1 - 20230425

Document Versions:

1.0

24/04/2023

1.1

27/04/2023

Prepared by:

CH

Checked by:

MS

Approved by:

CH

Director

The Mineral Planning Group Ltd. has prepared this report in accordance with the instruction of, and exclusively for the use of, its commissioning client. Any other person or body using the information contained herein does so at their own risk. The opinions expressed within this report are the true and professional opinions of The Mineral Planning Group Ltd. The content of this report may, in part, be based upon information provided by others, including the commissioning client, and on the assumption that those parties, when requested, have truthfully and accurately provided all relevant information. No section or element of this report may be removed or reproduced in any form without the written permission of MPG. © The Mineral Planning Group Ltd. 2023

1.0. Officer Query No.1

“The proposal is to remove the stone by HGVs to the applicants yard in Leyburn - this is a round trip of 80+miles - can you please provide a more detailed narrative to explain why it needs to go to Leyburn -along with a consideration of the carbon footprint from such a proposal.”

- 1.1. As detailed in the supporting statement, the mineral won from Horn Crag quarry is locally distinctive, particularly to west and north Yorkshire. The market for the mineral is national but the Operator intends to principally supply the West Yorkshire, North Yorkshire and to a much lesser extent, East Lancashire markets.
- 1.2. Minerals can only be worked where they are found and it is neither expected, nor prudent, to establish stone-cutting facilities at or close to each dimension stone quarry. Furthermore, there is no direction from National or Local Planning policy to establish new facilities at building stone sites as it would be entirely prohibitive to do so.
- 1.3. Nevertheless, the applicant advises us that they reasonably expect some 50% of the mineral won to be delivered, direct from site to local stone yards and building material suppliers once fully operational. The remainder will be transported to their processing facility in north Yorkshire to be processed.
- 1.4. To provide some context, minerals are regularly transported over significant distances due to their scarcity and importance to the construction sector. For example clay suitable for the manufacture of bricks (an alternative to natural stone) is regularly transported several hundred miles from its source to the brickworks and silica sand (for the manufacture of windows in homes) is likewise transported nationally / internationally.
- 1.5. BMDC’s Minerals Background Paper and Evidence Report (MBPER) (2021) highlights the threat posed by international imports of ‘proxy’ stone, that being stone which claims to match indigenous material but is won elsewhere:

“Imports are stated to be the perceived biggest threat to the UK building stone industry. In particular sandstone from India and China is noted to be competing directly with materials such as Yorkstone paving at less than half the price....”

“...the widespread use of artificial and imported materials, where local sources of building or roofing stones are either no longer available or unable to win competitive contracts, provides evidence that demand for building and roofing stone in England and Wales is “potentially somewhat greater than the current supply from indigenous sources”...”

“...there are only a limited number of operational quarries supplying building stone with appropriate aesthetic characteristics for use within the District. The scarcity of supply of coarse grained ‘gritstone’ walling, suitable for use in settlements to the north of the district [i.e SILSDEN], and stone slate roofing are particularly highlighted.”

- 1.6. The question raised poses the figure of 40 miles as a long distance over which to transport minerals, this is incorrect, the minerals which the District currently relies on for its construction needs are, at least in part, transported over several hundred, or as is identified by the MBPER (2021), tens of thousands of miles.
- 1.7. The table below is taken from the *University of Bath’s Embodied Carbon Studies* document and quoted by the *Natural Stone Federation*¹ providing context on the CO₂ benefits of natural stone, in particular, sandstone in England.

¹ *Natural Stone – The Oldest Sustainable Material (2021) SUS01/11*

Stone vs other building materials

Building materials	kgCO ₂ /tonne
Sandstone	64
Granite	93
Marble	112
General Concrete	130
General Clay Bricks	220
Slate	232
Timber	450
Facing Bricks	520
General Building Cement	830
Steel: Bar and Rod	1710
Steel: Galvanised sheet	2820

Source: This project and University of Bath ICE

- 1.8. The following table taken from *Historic Scotland's*² study of embodied carbon in Natural Building Stone, provides a similar summary, albeit the model used is based on imports to Scotland, not England.

Table 8: Percentage increase in cradle-to-site values for carbon embodied in natural stone due to transport from different countries of origin

Stone type	UK Cradle-to-Site* (kgCO ₂ e/tonne)	% Increase in Cradle-to-Site embodied carbon values			
		<i>Spain</i>	<i>Poland</i>	<i>India</i>	<i>China</i>
Sandstone	77.31	73%		304%	552%
Granite	158.00	2%	19%	113%	163%
Slate	297.42	7%			91%

*The UK Cradle-to-Site figures in this table are based on transport to hypothetical development sites used for the transport modelling in this study, and do not reflect distribution of stone and associated transport impact from UK quarries and processors. These are given in Table 5.

² Historic Scotland Technical Conservation Group – Technical Paper 7 – HS/C/45168/3624 (2010)

1.9. Using these tables to provide clarity on the situation, Bradford as a District is likely currently incurring a CO₂ surplus of some 300-550% where it relies on imports of natural stone in lieu of a sufficient stock of indigenous natural stone.

1.10. We must reiterate that the site is of exceptionally low output, just 20 HGVs per week would be permitted if planning permission were granted. On this point, the Council's Senior Air Quality officer states (BMDC's bolding):

*"For the purpose of the Bradford and West Yorkshire low emission planning guidance this level of HGV movements is considered **minor**. AQ impact assessments and damage cost calculations are only normally required where the number of HGV movements is likely to exceed 30 two way movements per day."*

1.11. Furthermore, as of 2023, the applicant's north Yorkshire stone yard will be run entirely on renewable energy from a 500kw solar installation on land adjacent to the facility.

1.12. The applicant also advises that the collection of block from site (as is the case with most mineral sites) would ordinarily be made on return journeys from the delivery of stone to the region from their stone yard.

1.13. In summary, the CO₂ emissions from 20 HGVs a week transporting stone to a site in the neighbouring authority for processing provides a dramatic saving in emissions in comparison to the district's current reliance on imports, poorly matched reconstituted materials and bricks which by their nature incur a significant CO₂ penalty relative to natural stone.

2.0. *The crushing and screening of the historic mineral waste - it is noted as 'a short period' - please provide the number of weeks/months proposed, as the description of 'a short period' is insufficient.*

2.1. The applicant has clarified:

- Upon re-inspection (April 2023) the mound contains an element of viable drystone walling stone that must have been cast aside when the site was last worked.
- Nevertheless, based on the applicant's professional experience, the entire mound could be processed and suitably moved in some 60 working days.
- The applicant has clarified that this would be undertaken in campaigns, but in any event, completed within the first 12 months.

3.0. *Please provide the location of the mineral extraction sites in the UK for which the 'snapshot' approach for BNG have been used. The Brooks Ecological BNG calc notes "Following methodology used by BSG Ecology on other mineral extraction sites"*

3.1. Example References that we are directly aware of³:

- 21/02505/CCMEIA – Northumberland County Council
- 1/22/9005 – Cumbria County Council

4.0. *It has been raised by residents that the noise survey states that sound monitors have been connected to lamp posts - they are questioning this, as there are no lamp posts in the area. Can you please explain.*

4.1. NOVA Acoustics have clarified that it was attached to a telegraph pole, lamp-post is a typo.

³ There will almost certainly now be many more but we have not canvassed all UK operators.

5.0. *Fishbeck Lane was in a fairly poor state of repair when I visited recently to erect the site notices - are there any proposals to address the likely impacts of additional HGVs on the tarmac surface of Fishbeck Lane?*

5.1. The applicant has stated that they would be willing to cover the cost of suitably resurfacing the lane from its junction with the adopted highway to the quarry entrance should the fabric of Fishbeck Lane be considered a material issue preventing the granting of planning permission.

5.2. The applicant would also set aside a fund for ongoing maintenance, capped at a suitable figure per annum, should the Council consider that 20 HGVs a week could cause material damage to the resurfaced route during the site's operational period.

6.0. *The maximum depth of the quarry - the cross sections appear to show a maximum depth of 336m - can you please confirm this is correct.*

6.1. The maximum depth of the quarry is shown on the Quarry Design plan ref: E454-003. The maximum depth of extraction would be 232m AOD, though this depth only occurs in a small element of the final site floor.

7.0. *Can you please provide the details and evidence (correspondence, notes, dates etc) regarding point 5.3 of the Resubmission Addendum - i.e the reference to the Applicants offering to pay for connecting residents to the mains water supply, as well as offering to drill an independent borehole - and the evidence that the offers were declined.*

7.1. The offer was declined, in person, and reiterated on several phone-calls by the residential property purporting to draw its water from the chamber on site. The property owners visited the site on several occasions and on one occasion, when the applicant asked about discussing the matter with other residents, stated that they were acting as a point of relay for information to the other nearby residents.

They stated that the upkeep of a borehole was too expensive and they had past experience of maintenance issues of boreholes elsewhere.

- 7.2. We (MPG) were privy to these conversations and were also present at a site visit where they stated that they had no desire to accept a borehole, so we are also content to go on record and state that a borehole was offered and declined.
- 7.3. If further information is required on who these individuals are we can provide this under separate cover and subject to compliance with relevant privacy legislation.
- 7.4. The applicant would no longer offer this borehole, particularly as the independent HIA demonstrates that there would be no impact on the existing spring.
- 8.0. *Can you please confirm that all material that is to be crushed and screened will be retained on site -the supporting statement under 13.10.1 notes that "Only block and mineral suitable for dimension stone would be exported from The Site" - however, the previous 2022 application (in response to the queries by case officer) noted that "Not all of the crushed material would be taken off site as an element would be retained for the formation of internal haul routes and areas of hardstanding".*
- 8.1. Further to our response at Question No.2, only the fraction of the mound suitable for dry stone walling or dimensional stone production would be removed from site. The remainder would be used in the final restoration of the site and for the maintenance of internal infrastructure.
- 8.2. The final restoration scheme requires the formation of 'scree slopes' against the quarry faces and 'random hummocky' topography across the base of what would otherwise be a flat base upon the completion of extraction
- 9.0. *There is a stabling/equestrian business (stables & ménage) to the west of the redline (approx. 120m from redline & opposite side of road to Greencare's residential property). This is noted as being an existing business, which could*

be adversely impacted upon by the proposal (mainly due to noise). Can you please provide a robust narrative to explain why it is considered that this stabling/equestrian business will not be adversely impacted upon by the proposal. You noted in the previous application that the impacts of noise on animals was not a matter for consideration in the NIA. However, it is the impact on the business (stables/equestrian business) that we seek a narrative on and as it is noise which is cited as being the main reason for the adverse impacts on this existing business, it therefore a matter that needs addressing by means of a narrative/evidence, as impacts on existing businesses are a matter for the planning authority to consider.

- 9.1. The site constitutes small scale dimensional stone⁴ extraction in a rural location with no blasting proposed and just 20 HGVs per week. Rural enterprises, agriculture and mineral extraction co-exist nationwide by virtue of where they have to exist.
- 9.2. In any event, the NSR1 monitoring point which was positioned at the nearby stables concluded that there would be no unacceptable impact on human beings, we (and the independent noise experts NOVA Acoustics) are not aware of any direction to hold animals to a higher standard with regards to noise impact than humans.
- 9.3. It may help us answer the question directly if there is a specific type of 'noise' that is purportedly the issue, as it is demonstrably the case that modellable, worst-case, noise emissions from all plant and machinery working simultaneously (which

⁴ NPPF 211: "When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy. In considering proposals for mineral extraction, minerals planning authorities should: ...**recognise the small-scale nature and impact of building and roofing stone quarries**, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites."

BMDC LP 5.5.21: "Particularly strong support is offered to minerals development which would result in an increased supply of scarce building, roofing or paving stones, such as stone slates, riven flags, or matching stones needed for the repair of historic buildings or monuments... **and the relatively small scale and low intensity of extraction sites and working methods**"

would not realistically occur), at the closest possible point to NSR1 would not cause unacceptable impacts, even to humans.

- 9.4. The applicant also operates an existing sandstone quarry and stone yard in what is the Country's epicentre for racehorse training (Middleham and Leyburn) and they have received no complaints of adverse impact on livestock or racehorses in over 20 years.
- 9.5. We can provide examples of successful riding centres abutting active large-scale, blasting, aggregate quarries⁵ if this would assist – such as *Matchmoor Riding Centre* in Bolton, Greater Manchester, which abuts the working face of the several hundred thousand tonne per annum sites of Montliffe and Pilkington quarries with permitted HGV outputs into several hundreds per day.
- 10.0. *It has been noted by a number of occupants of the Cringles Caravan Park that they receive their water from a borehole and they are concerned that excavation will impact on this borehole, reducing supply and impacting on the quality of supply. It is noted that in the Hafren Water report it states that ".....the proposed works will not impact adversely upon the wider water environment and the continued viability of the spring collector water supply located to the west of the site .." but it does not appear to specifically note the borehole that serves Cringles Caravan Park and whether or not it will be impacted upon. Can you please consider this and provide a robust response to address the concerns.*
- 10.1. Whilst the HIA does not directly consider impacts upon the private water supply borehole(s) at Cringles Caravan Park (as there is a closer potential receptor that was used in the HIA), it does make an assessment of overall groundwater flow direction. This is determined to be from the northeast towards the southwest, turning more westerly near to the western boundary of The Site. Groundwater flow direction is not towards the caravan park.

⁵ Which are the antithesis of Horn Crag, a small-scale building stone site with no blasting and no aggregate outputs.

10.2. In any event, the above analysis is without prejudice to the findings of the HIA which concluded that due to the proposed stand-off from groundwater, no unacceptable impacts on flow or quality would be caused by the proposals. To re-iterate, the extraction would not go below the water table and would not alter the current groundwater regime at / beneath The Site.

11.0. *We are requesting:*

- *the completed Defra Metric calculator and the GIS files for the different phases of development*
- *the emerging DEFRA guidance specific to minerals sites - referenced in 10.4 of the resubmission addendum, as we are unable to find such emerging DEFRA guidance*
- *and as per my e-mail of the 12 April (point 3 - e-mail attached for reference) - the location of the mineral extraction sites in the UK for which the 'snapshot' approach for BNG has been used.*

11.1. The DEFRA Metric calculator and GIS files are attached in full.

11.2. With regards to specific minerals advice from DEFRA, the statement below is taken from section 2.4 of the August 2022 Technical consultation on the biodiversity metric:

11.3. *"We are aware of the difficulties faced by minerals projects in accurately measuring biodiversity net gain. This is due to the nature of their phased approaches, unusual substrates, and long timescales. We are planning to add specific guidance in the metric user guide to help accommodate these. This will allow for multiple stages of metric submissions for minerals developments..."*

- 11.4. In the meantime, ecological consultants have included an example of applying the metric in its most basic original form⁶ (which does not, in any way, consider the phased nature of quarries) to demonstrate how wholly incompatible it is with mineral sites and that it generates a meaningless value upon completion.
- 11.5. In any event, if the authority harbour reservations about accepting a 'snapshot' approach, the final BNG calculation (see report ref: ER-5064-08E, page 20 and explanation on page 14) can be viewed in isolation as the calculated and actual BNG value of the site. For the avoidance of any doubt, the calculations which determine the final BNG figure are included, and can be scrutinised, at sheet *A2 Site Habitat Creation* of spreadsheet *BM-5064-04.7 year 42*.

⁶ Figure 19, Page 21 – BNG Assessment (23/11/2021)