

**12. FULL APPLICATION: RENEWAL OF CONSENT TO CONTINUE UNDERGROUND MINING OF FLUORSPAR AND ASSOCIATED MINERALISATION FROM THE HUCKLOW VEIN SYSTEM: APPLICATION TO VARY CONDITIONS 2, 3, 9, 11, 13, 41 AND 42 OF PLANNING PERMISSION NP/DDD/1298/620 TO EXTEND THE OPERATIONAL LIFE OF THE MINE, INCREASE ANNUAL OUTPUT, INCREASE DAILY LORRY MOVEMENTS AND EXTEND THE PERIOD IN WHICH TO UNDERTAKE AND COMPLETE THE FINAL RESTORATION AND AFTERCARE PROVISIONS, MILLDAM MINE, GREAT HUCKLOW (NP/DDD/0913/0838, M5534, 417650 378011, 17/09/2013 /APB)**

**APPLICANT: BRITISH FLUORSPAR LIMITED (BFL)**

**Site and surroundings**

Milldam Mine, as defined by planning permission NP/DDD/1298/620, comprises approximately 2,182 hectares of land within the parishes of Eyam, Great Hucklow, Foolow, Grindleford, Calver, Grindlow, Highlow, Stony Middleton and Abney and Abney Grange. It includes the villages of Eyam, Great Hucklow, parts of Stony Middleton and Grindleford and a small number of hamlets and isolated houses and farms. The large majority of the application area comprises agricultural land bounded by hedgerows, post and wire fencing and dry stone walls. A number of public footpaths and bridleways cross the area together with a number of overhead transmissions lines. The large size of the permission area is linked to the consolidation in 1986 of the old mineral planning permissions that were formerly attached to the land.

Access to the mine is via the Milldam Mine compound located on the north-western edge of the village of Great Hucklow, from where a 1 in 8 drift downwards has been driven at a point just below the exposed shale/limestone contact. A short stretch of private haul road links the mine compound with the public highway at an access point on the Great Hucklow to Windmill road, approximately 200m west of the village. Heavy goods vehicles (HGVs) leaving the site turn right onto the public highway travelling towards Windmill onto to the B6049, thereby avoiding any HGV mine traffic travelling through the village of Great Hucklow. The HGVs then travel along the B6049 and turn left onto the A623 heading towards Stony Middleton, to take the ore to the Cavendish Mill processing facility.

A number of archaeological features lie within the application area, with a cluster of Scheduled Ancient Monuments (SAM) around Eyam Moor. However, these features are over 2km distant from the proposed working area east of Great Hucklow. The closest SAM to the vein structure identified for extraction is Burr Torr Prehistoric stock enclosure, the southern edge of which lies approximately 100m north of proposed eastern working area, 300m west of the mine compound.

There are several Sites of Special Scientific Interest (SSSIs) within the application area, the three closest of which are Bradwell Dale and Bagshaw Cavern (which lies approximately 230m south of the proposed eastern working area), Waterfall Meadows (approximately 400m southwest from the eastern end workings) and Abney and Bretton Cloughs which lie over 270m north east of the proposed eastern working area. This latter SSSI designation falls within a much larger area of land designated as Natural Zone, which extends and broadens out westwards away from the proposed area of working, covering a large swathe of Eyam Moor and Bretton Clough.

**Proposal**

The application is submitted under section 73 of the Town and Country Planning Act 1990 (as amended) to vary conditions 2, 3, 9, 11, 13, 41 and 42 of planning permission NP/DDD/1298/620. The application seeks to extend the operational life of the fluorspar mine by a further 15 years, increase annual output, increase daily lorry movements and extend the period in which to undertake and complete the final restoration and aftercare provisions. The key elements of the permission which the applicant proposes to change are listed below.

### Duration

The current permission (condition 2) states that no mineral extraction shall take place after the 31 December 2013, followed by restoration of the compound to amenity use to be completed by 30 June 2014. The applicant proposes that this time limit be extended by a further 15 years, so that mineral extraction terminates on the 31 December 2028 and restoration of the mine compound is completed by 30 June 2029.

### Number of vehicles

Condition 9 of the permission states that the total number of lorry movements per day shall not exceed a maximum of 24 lorry movements: 12 in and 12 out. The applicant proposes an increase in the maximum number of lorry movements to: 58 movements per day (29 in and 29 out) Mondays – Fridays (8am – 5pm); 26 movements per day (13 in and 13 out) Saturdays (8am – 12 noon). The rationale for this proposed increase in traffic movements is linked to the increased emphasis in the development plan minerals policy for increased underground minerals production, which necessitates an increase in HGV movements in and out of the site.

### Output

Linked to this, the applicant is seeking an increase in the maximum annual output of vein mineral ore from 60,000 tonnes (condition 11) to 150,000 tonnes per annum. The applicant states that this proposed increased output limit would enable the company to potentially source approximately 50% of its ore requirement from underground mining based on current anticipated production figures. By implication they consider that this will reduce future pressure on alternative above ground extraction sites.

### Working Scheme

Condition 13 on the current permission refers to a requirement to undertake mineral extraction in line with a suite of approved working and phasing plans. Those plans illustrate that working was to be concentrated on a the Hucklow vein system located west of the Blackhole Mine shaft and progressing in a westward direction to a point about 520 metres east of the Milldam Mine compound. The current section 73 application proposes extraction in this same vein structure, but developing the mine at a faster output rate and extracting fluorspar reserves at lower depths. However, no change is required to the current conditional depth limit of 150m AOD in the 1999 permission (condition 21). The applicant has provided a revised set of detailed plans to accompany the application which indicate the proposed working and phasing of operations, with supplementary technical information on how the mine is to be worked. A crown pillar support system will be installed to support the shale cap and prevent subsidence. Appropriate ventilation and rise holes will be incorporated into the underground workings.

The working area can be divided into three blocks centred along the Hucklow vein structure; (i) the existing 'C West production Area', approximately 2km north of Foolow (years 1 – 2); (ii) 'West Production Area' (to the north west of Great Hucklow) (years 1 – 5); and (iii) a central area between (i) and (ii) where the mine will continue to be developed eastwards in Phases 2 and 3 to intersect the eastern end of the mine at 'C West' (years 5 – 15). Details of the first five years of operations have been submitted with the application, with the remaining phases 2 and 3 to be worked in the same manner as 'West Production Area' and outlined on an overall development plan.

### Restoration/aftercare

Condition 42 of the current planning permission requires that no later than 31 December 2012, or the date on which extraction ceases, a detailed scheme for the restoration, planting and aftercare of the surface compound, portal and haul road shall be submitted for approval to the MPA. The condition requires that the restoration scheme be implemented within 6 months of the date of its approval. The applicant proposes that this condition requires amendment to reflect the change in dates associated with the extension of time. Additionally, an indicative landscape strategy drawing has been submitted as part of the application proposal (reference Plan LRM171036) which demonstrates the principles that could be incorporated into the restoration scheme. The applicant proposes that the condition be reworded to require submission of a detailed scheme

within six months of the grant of an approval (should the application be approved) rather than waiting until the year before operations are due to cease for its submission. Plan LRM171036 would also replace the two plans referenced in condition 42 (Landscaping).

#### Other conditions

No other changes to conditions are sought. However, in determining a section 73 application, the Authority does have the opportunity to review all the conditions contained in a permission and, where necessary and for justifiable reasons, can amend other conditions provided those changes do not materially change the nature of the permission. For example, should there be a need to bring conditions controlling environmental emissions (noise, dust, blasting, etc) up to modern environmental standards (bearing in mind that it is 15 years since the grant of the previous permission), then those revisions can legitimately be incorporated into a new permission should the application be approved.

### **Background**

Planning permission for the extraction of fluorspar by underground mining at Milldam Mine was first granted in 1986. In 1998 an application was submitted to renew the permission for a further 15 years (granted with conditions in 1999 to continue underground mining of fluorspar and associated vein minerals, planning reference NP/DDD/1298/620). The area of working is concentrated on the Hucklow Edge vein system and mineralisation, where the limestone (within which the vein occurs) is capped by shale and gritstone. The workable depth of vein within the limestone is usually about 100m and vein width can vary over relatively short strike lengths, ranging between 1.5m and 15m. Estimated total fluorspar tonnage within the Hucklow vein structure has previously been estimated at around 2.4 million tonnes.

A very limited amount of mineral extraction was undertaken shortly after the 1999 permission was granted, but thereafter the mine was predominantly left unworked and put on a 'care and maintenance' programme for a significant proportion of the 15 year duration, up until Autumn 2012, when the new business owners, British Fluorspar Limited (BFL), re-commenced works to bring the mine back into production.

Although the planning permission red line boundary covers a significantly large area, the actual extent of underground working has historically been, and continues to be, restricted to a linear zone following the line of the Hucklow vein system, which runs approximately northwest-southeast between Great Hucklow and Eyam. Although there are other vein structures within the planning permission red line area, the approved plans on the 1999 permission identified that vein mineral working would be concentrated on the Hucklow vein system located west of the Blackhole Mine shaft and progressing in a westward direction to a point about 520 metres east of the Milldam Mine compound.

The application was submitted in September 2013, prior to the extraction expiry date set out in condition 2 of the 1999 permission (31 December 2013). Officers in the Minerals Team are aware that the company have continued underground mineral extraction at Milldam Mine beyond that date and that the continuing mine development is unauthorised. With the applicant having taken the decision to continue working into 2014, the application is now part-retrospective.

Members should be aware that a separate Delegated Enforcement report has been produced and was authorised by the Minerals Team Manager and the Director of Planning on 26 September 2014. The report recommends that no formal enforcement action is taken at this time since it would not be expedient to do so for several reasons. Firstly, as will be demonstrated in this report, the development itself is principally in line with development plan policy, which states that the Authority will encourage and support the continued extraction of fluorspar ore by underground mining at locations where economically workable deposits have been proven in advance and the environmental impacts can be appropriately mitigated.

Allied to this, the operating company submitted their section 73 application to extend the time period for underground working some three months prior to the expiry date in the current

permission, on which a decision is expected at this Committee meeting. Therefore, it is important to note that at the time the application was submitted, it was not a retrospective application, and there was a genuine expectation on the part of the operating company that the application would have been dealt with prior to the 31 December 2013 extraction cessation date. However, for various reasons the determination period has been lengthy and it has taken longer than anticipated to reach the point where the matter can be taken to Planning Committee.

### **Environmental Impact Assessment (EIA)**

The development which the applicant is now seeking planning permission for was screened during the pre-submission stage to determine whether it is EIA development and whether the application needed to be accompanied by an Environmental Statement. The screening opinion, dated 20 December 2012, was negative and concluded that the development was unlikely to have significant effects on the environment within this part of the designated National Park such as to adversely affect one or more of the interests identified in Schedule 4 of the EIA Regulations 2011. Accordingly, no Environmental Statement was required to accompany the application.

### **RECOMMENDATION:**

1. That the application reference NP/DDD/0913/0838 be **APPROVED** subject to conditions covering the following matters:
  1. Cessation of mineral extraction by 31 December 2028.
  2. Restoration of the mine compound by 30 June 2029.
  3. Mineral extracted confined to the winning and working of vein minerals (fluorspar, barytes, lead, zinc and calcite) – no limestone (waste, overburden or host rock) to be worked and removed from the site.
  4. Development to be undertaken in accordance with submitted working and phasing plans (to be detailed in the Decision Notice).
  5. No shaft or mine entrance shall be used for access or production purposes other than the entrance that presently exists within the mine compound (without precluding the retention and use of Ladywash, Black Engine and Glebe shaft for ventilation and emergency access).
  6. Maximum depth of working not to exceed 150m AOD.
  7. Output restricted to 150,000 tonnes per annum.
  8. Operator to maintain records of monthly production. Submission of annual output on monthly basis in January of each year for the previous 12 month calendar period January - December.
  9. No processing of vein minerals on site.
  10. No mineral stockpiles or waste rock piles shall exceed a height of 5 metres above the compound floor.
  11. Submission of surveys showing extent of underground working on annual basis.
  12. Details of working showing vein mineral to be worked in Phases 2 and 3 required prior to commencement of sub-level 6 development (West Production Area).
  13. Annual submission of statement outlining progress over previous 12 months and intended working plans for following 12 month period.
  14. No HGVs shall travel to and from the mine compound other than via the private haul road which joins the public highway west of Great Hucklow village.
  15. All HGVs shall turn right when leaving the site at the junction of the private haul road with the public highway. Maintain signage on access road instructing all HGV drivers to turn right onto public highway for duration of development. Maintenance of visibility splays.
  16. Site access to be maintained in a good state of repair and kept clean and free of mud and other debris at all times.

17. Facilities shall be made available in the compound at all times to ensure that no commercial vehicles leaving the site enter the public highway in a manner which causes mud or other debris to be deposited on the highway.
18. No more than 58 lorry movements per day (29 In, 29 Out) Monday to Friday; 26 movements per day (13 In, 13 Out) Saturdays.
19. Hours of working
  - (i) Underground working: from 0600 hours Mon to 1300 hours Saturday. No working on Sundays, public or Bank Holidays.
  - (ii) Lorry loading and movements: no lorries to use the haul road, and no lorries to be loaded with vein mineral, other than between 0800 and 1700 hours daily Mon–Fri and 0800–1200 noon Sat. No lorry movements on haul road or loading on Sundays, public or Bank Holidays.
  - (iii) Mine compound: 0600 – 2200 hours daily Mon-Fri and 0800 1200 hours Saturday. No working on Sundays, public or Bank holidays.
20. Surface subsidence – requirement to notify MPA in event of surface subsidence event within 2 working days of its occurrence; requirement to cease working in affected underground area and submit detailed plan of remediation works, to include a re-assessment of working practices in operation at the time of the subsidence event, for approval by the MPA; no mineral to extraction to recommence in the affected underground area until the remedial programme of reinstatement has been undertaken in line with approved details.
21. No ventilation fans shall be located in positions other than below ground surface within the tunnel or shaft entrance. Details of any further ventilation equipment proposed for within 100m of the mine compound entrance shall be submitted to the MPA for approval prior to installation.
22. Archaeology – requirement to submit programme of archaeological monitoring, including a Written Scheme of Investigation, covering the areas to be worked, within three months of date of permission for MPA approval. Monitoring programme to be implemented for duration of the development.
23. Notification to MPA in event of any speleological or geological features of interest arising during works programme.
24. Blasting
  - (i) Hours of blasting: 0600-2200 hours daily Mon-Fri, 0600-1200 hours Sat. No drilling or blasting operations on Sundays, public or Bank Holidays
  - (ii) No individual blast to exceed a peak particle velocity (ppv) of 2mm/second at or near the foundations of any sensitive building or residential premises.
  - (iii) No secondary blasting to be carried out on the site.
  - (iv) Operator to undertake monitoring of all blasts.
  - (v) Operator to maintain records of all blast monitoring, including date/time, location of blast, location of monitor and resulting ppv.
25. Noise
  - (i) Noise dB Limits:
    - (a) 47 dB(A) LAeq(1hr)(free field) 0700 – 1900 hours;
    - (b) 42 dB(A) LAeq(1hr)(freefield) 2200 – 0700 hours
    - (c) 1900 – 2200 hours – noise levels not to exceed background level by more than 10dB(A)LAeq(1hr)(freefield)
  - (ii) Underground vehicles to remain underground between 2000 and 0800 hours.
  - (iii) No working with covers open or removed, except for the purposes of maintenance
  - (iv) No HGV lorries used in transporting vein mineral, or mine vehicles, to be used without fully functioning white noise reversing sensors.
26. Dust control – ensure the availability of a water bowser or other dust

abatement equipment at all times throughout the duration of the development, to be used in the event of dust from the mine compound adversely and to be used as necessary.

27. No discharge of foul or contaminated drainage from the site into either groundwater or any surface water, whether direct or by soakaways.
  28. Appropriate storage of oils, fuels and chemicals on impervious bunded areas as per requirement from Environment Agency
  29. Hydrology – carry out periodic water quality sampling (turbidity and chemical composition) for duration of the development.
  30. Removal of GPDO rights covering fixed plant, buildings and machinery
  31. Maintenance of the existing trees, shrubs and hedgerows within the site around the mine compound, as identified on plan LRM171036.
  32. Submission of final restoration and aftercare scheme for mine compound within 6 months of date of the date of the permission
  33. Undertake restoration and aftercare in accordance with approved scheme
2. That authority is delegated to the Director of Planning to approve the final details of the conditions in consultation with the Chair and Vice-Chair of the Planning Committee.

### Key Issues

The main issues in respect of this application are considered to be:

1. whether the principle of continuing underground working at the site for a further 15 years up to December 2028 is acceptable;
2. whether the impacts on the environment and amenity of the area arising from continued underground working at an increased output level are acceptable.

### History

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| 10 June 1952 | Ministerial planning permission 1898/9/31 granted to extract vein minerals by underground methods from the central part of Hucklow Edge via Black Hole Mine.  |
| 22 Sep 1955  | Ministerial planning permission 1898/9/1 granted for the extraction of fluorspar, lead and associated vein minerals from Glebe Mines Eyam and Ladywash Mine. Underground extraction operations using the Ladywash Mine shaft ceased in 1979 due to increasing economic and operational problems linked to the restrictive width of the Ladywash Shaft. The Eyam shaft ceased to be a secondary access point when it was capped as part of the development of the former Glebe Mine site in 2007. The shaft cap has been designed to still provide a limited ventilation function to the workings below.   |
| 1984         | Discontinuance Order sought to discontinue the use of the future Milldam Mine compound area as a scrap yard which had developed in the 1960's. The area was the subject of a Compulsory Purchase Order (CPO) in order to implement the deemed planning permission granted by the Board for the necessary re-grading and landscape works to the site.  |
| 21 Mar 1986  | Planning permission NP/WED/985/387 granted for the extraction of fluorspar and associated vein mineralisation from the 'Glebe' and 'Black Hole' permission areas and from an additional area to the north west of the Black Hole permission. It included the area now known as Milldam Mine where a new mine compound was developed to access the underground workings on the site of the former scrap yard, replacing the previous entrances at Ladywash and Glebe Mine. The 1986 permission, with 52 conditions, replaced and superseded the earlier 1952 and 1955 permissions. Construction of the mine compound commenced in 1987. Driving of the new adit and linking up with the old Ladywash workings was completed in September 1991. Limited extraction of |

	vein mineral commenced in 1992. Full production commenced in 1994. The planning consent allowed extraction of fluorspar and associated mineralisation from the Hucklow Edge vein system until 31 December 1998.
3 Nov 1999	Planning permission NP/DDD/1298/620 granted for the renewal of the 1986 consent with a revised duration period for mineral extraction up to 31 December 2013 with the restoration of the compound area to amenity use by 30 June 2014.
Dec 1999	Laporte Minerals, the former applicant and operator of the site, was brought by Glebe Mines Ltd (GML). After a brief period of activity the operations at Milldam Mine were put on a programme of care and maintenance. This remained the case until mining operations were re-established under new business ownership (British Fluorspar Limited) in October 2012.
11 Feb 2000	Planning permission NP/DDD/1298/622 granted for renewal of consent for use of barn as a store for purposes ancillary to Milldam Mine.
21 June 2010	As part of planning permission NP/DDD/0208/0104 for Tearsall Quarry, a section 106 Agreement was signed between the landowners, PDNPA and the owners of Cavendish Mill to provide 15% of Cavendish Mill's ore requirement from underground sources for the duration of the Tearsall planning permission. The Milldam mine site is currently the only viable underground source to meet this obligation at this moment in time.
22 Nov 2012	Planning permission NP/DDD/0610/0588 granted for removal of existing portable welfare facilities and replace with new portable buildings of the same size and structure, and erection of new CCTV tower and new fitting office at the Milldam Mine compound.
17 Sep 2013	Submission of section 73 application to allow working to continue for a further 15 year period, increase annual output, increase daily lorry movements and extend the period in which to undertake and complete the final restoration and aftercare provisions – the application currently being considered.
Dec 2013	Subsidence hole occurred on land to the north of Foolow on land coinciding with underground mineral workings. HSE and Authority investigations follow. Remedial works to infill and restore the void undertaken under permitted development rights, under part 19C of the GPDO 1995.
30 Apr 2014	Planning permission NP/DDD/1213/1117 granted for continued use of a building as a secure store and construction of peripheral bund.

## Consultations

There have been two separate rounds of public consultation. The application was submitted in September 2013. Amended working plans and further information in respect of phasing, archaeology, hydrogeology, blast vibration analysis and geotechnical design was provided between March and April 2014 and a second consultation was undertaken in May 2014.

**Highway Authority:** Whilst there are no perceived highway capacity concerns, any consent would result in a significant increase in HGV movements at the private haul route access with the adopted highway. This access is substandard to current layout recommendations particularly with respect to exit visibility. The recommended absolute minimum exit visibility splays where a road is subject to the national speed limit are 2.4m x 154m to the nearside carriageway channel in each direction (desirable provision is 2.4m x 203m). Any lesser provision should be supported by the results of a traffic speed survey. It is suggested that mitigation of the substandard access layout should be demonstrated. Therefore, recommend that the applicant be requested to submit details demonstrating measures to address the issue of increased HGV activity at the substandard access with the adopted highway.

*Officer comment: In response to this consultation reply, the applicant commissioned a speed survey and provided a revised visibility splay plan demonstrating that the desired visibility splays can be achieved. Visibility from the west will be achieved by removing a stand of regenerating ash trees located along the highway. This work has already been undertaken under agreement*

with the Highway Authority. E-mail from Highways Authority dates 8 January 2014 confirmed that the revised visibility splays are acceptable to serve the development.

**English Heritage: (First response)** Recommend that the application be determined in accordance with national and local policy guidance, and on the basis of your specialist conservation advice.

**EH: (Second response)** Note that within BFL ownership blue line lies the historic lead mine of Little Pastures. Subsequent to our previous response the scheduling assessment for the historic lead mine located at Little Pastures Farm has been completed by English Heritage. This mine has been assessed to be of national importance. Ultimately, the decision regarding its designation lies with the Secretary of State for the Department of Culture, Media and Sport. Not clear from the consultation materials whether the proposed scheme of working will actually affect the above site. Clearly if it does this is a substantive issue given the importance of the site and in that case we would like to engage in discussion of these issues. Seek clarification from the Authority on this matter.

*Officer comment: A clarification e-mail and plan were sent to EH on 17 June 2014 informing them that the actual area of underground mineral extraction proposed is limited to a linear band running approximately 1.4 km between Great Hucklow and Bradshaw Lane (following the line of the main vein structure). The most easterly extent of the workings roughly falls just to the east of Slater's Engine Mine. Drawing a straight line from this most easterly point of the proposed workings to Little Pasture Mine, the distance is approximately 1.5km. On this basis the proposed workings should not impact on Little Pasture Mine.*

**Health & Safety Executive/Mines Inspectorate: (First response)** Concluded that mining activity at the Milldam mine in the vicinity of Slater's Engine mine was a contributory factor to the sink hole appearing on land near Foolow in December 2013. This was essentially because the mine operator had not identified the hazard from old mine workings and the potential effect on surface stability and taken steps to control it. Following the investigation a Notice of Contravention was served on the mine operator requiring them to take action on these matters. These workings did form part of the early phase of working this mine, however since the incident all activity in this area has been abandoned and providing they comply with their legal obligations to prevent inrushes and to control ground movement the likelihood of a similar incident should be minimal.

**HSE: (Second response):** Note that the vertical separation between the stope being worked in December 2013 and the presumed bottom (or at least the water therein) of Slater's Shaft is of the order of only 20m. Wardell Armstrong, and the mine plan, state that the old lead workings were in the upper limestone as well as the shale, so can be expected to be potentially present in any future work area. To that end, and since the Foolow hole has developed, the mine management have instigated a precautionary drilling scheme with the intention of proving the ground above the stopes before working. This should ensure that there is no repeat of the Foolow incident. Following review of the information supplied, I find no grounds for HSE to object to the proposals.

**Severn Trent Water: No response received.**

**Environment Agency: (First response)** The mine is underlain by the Eyam Limestone Formation, which is classed as a Principal Aquifer under the Environment Agency's Groundwater Protection, Principles and Practice (GP3). Groundwater in the area requires significant protection. Water Management has been considered in Appendix 3, which was submitted in support of the application. We understand that water is intercepted, piped through the mine network and discharged downstream. The water quality sampling shows some slightly elevated metals in water entering the mine. On this basis, ask that a scheme of water quality monitoring is implemented under existing Condition 34 in order to confirm the quality of water being discharged from the site and to ensure that no pollutants are entering the water environment. The EA comment that if the MPA are minded to renew consent, they ask that additional planning



conditions be imposed covering appropriate storage of fuel, oil and other chemicals in banded areas.

**EA: (Second response)** No further comments to those given previously.

**Derbyshire Dales District Council (Environmental Health): (First response)** No objection to the granting of permission, however, for the protection of amenity to local residents make the following comments:

Hours of blasting Existing permission has exceptionally generous permitted hours of blasting and are considerably less stringent than we would recommend for a new permission. Recommend the permitted hours are amended to: 8am – 6pm Mon – Fri; 8am – 1pm Sat; no blasting on Sundays and Bank Holidays. However, if the LPA are minded not to implement more stringent hours of blasting, then would recommend that blasting outside of these hours be limited in some way and that the majority of the required blasting be undertaken during the day (within normal working hours listed above). Furthermore, recommend a notification procedure be introduced for blasting outside the hours with the Local Planning Authority and would recommend strict limits during these times with the aim it is not detectable in residential property. Also recommend a condition requiring the company to undertake monitoring of the blasts in the event that complaints are made. This should be in consultation with the Local Planning Authority.

Recommend a condition requiring the sheeting of lorries when being hauled on the public highway. All other limits and conditions to remain. Would be prudent to require a noise impact assessment be undertaken prior to the permission being commenced as it is proposed to increase the volume of activity.

*Officer comment: In response to this consultation reply, and following on from concerns raised from residents close to the mine compound over noise emissions at certain times of the day, the applicant commissioned a noise survey. This was assessed by the EHO.*

**EHO: (Second response)** *[In terms of noise survey and conditions]* Current planning conditions unenforceable and need changing. Recommend that use the conditions set out in the NPPF. i.e. set noise levels where possible for day time noise which does not exceed the background noise level by more than 10dB(A). NPPF accepts that this may not be possible in certain circumstances and an upper limit of 55dB(A) be applied. From the survey, the highest background reading that was obtained at the nearest noise sensitive property was 36.7 dB(A) which was measured between 08:10 to 09:10 hours. Rounding this up to 37dB(A), I would propose that the daytime noise (07:00 to 19:00 hours) from Milldam Mine should not exceed 47dB(A) when measured as a 1hour LAeq (free field). This should be measured at the boundary of the nearest noise sensitive property or at an equivalent distance. Evening noise (19:00 to 22:00) should not exceed the background level by more than 10dB(A) and night time noise (22:00 to 07:00) should not exceed 42dB(A) when measured as a 1hour LAeq (free field)

With regard to reversing beepers, a condition should be included that states all vehicles operating on site must be fitted with broadband sound (white sound) reversing alarms or an equivalent system to eliminate the disturbance that can be caused by traditional reversing alarms which are tonal in nature.

**EHO: (Third response)** Following re-assessment of noise survey submitted by the applicant and having undertaken own independent monitoring of noise at around same time the applicant's consultants took theirs, the results are broadly similar. Noted that there was some tipping (presumably into a lorry) before 8am. I would recommend that such tipping be restricted to between the hours of 8am and 5pm.

**Derbyshire Dales District Council (Planning) - no response received**

**Central Networks East:** No comments received.

**Natural England (first response):**

SSSI The application lies within a short distance of a number of SSSIs - Waterfall Meadows, Abney and Bretton Cloughs and Bradwell Dale and Bagshaw Cavern in particular. However, given the nature and scale of this proposal, Natural England is satisfied that there is not likely to be an adverse effect on these sites as a result of the proposal being carried out in strict accordance with the details of the application as submitted. The SSSIs do not represent a constraint in determining this application.

Protected Landscapes: No comment in relation to the potential landscape character or visual impacts, as the extension to time allowed for working the site would appear to have little impact upon the protected landscape of the National Park.

Other Advice Would expect the LPA to assess and consider the other possible impacts resulting from this proposal on the following when determining this application, in particular in relation to the restoration proposals following cessation of working:

- local sites (biodiversity and geodiversity)
- local landscape character
- local or national biodiversity priority habitats and species

Recommend that LPA seek further information from the appropriate bodies, in order to ensure there is sufficient information to fully understand the impact of the proposal. The application may provide opportunities to incorporate features into the design which are beneficial to wildlife, such as the incorporation of roosting opportunities for bats or the installation of bird nest boxes. The authority should consider securing measures to enhance the biodiversity of the site from the applicant, if it is minded to grant permission for this application.

**NE: (Second response)** The amendments to the plans originally submitted in support of this proposal would not appear to affect our interests, and we therefore do not wish to add to or amend the comments provided in our previous response to this proposal.

**PDNPA Archaeology:** Initial comments related to the archaeological method statement for monitoring and recording at Milldam mine. In the context of the below ground working methods observed during site visit, would not object to the proposal on archaeological grounds, provided that a detailed scheme for archaeological monitoring can be agreed under the recommended condition below.

*A) No development shall take place/commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing.*

*B) No development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).*

*C) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.*

The condition should replace conditions 38 and 39 on the previous permission. Highlight the fact that the desk-based assessment does not include any mapping of the heritage features which are listed within it. Previously recommended that the search area for heritage assets should be a 500m buffer zone either side of the proposed underground working, rather than a 1 km radius of the mine entrance used for the dba in the submitted method, as it will make the potential impact of subsidence on any known surface heritage assets more clear. The following sites which are registered as 'High Priority sites' under the Lead Legacy initiative are located above the underground operations:

- New Edge and Have At All Mines, Hucklow Edge, Great Hucklow
- Hucklow Edge Vein, Hucklow Edge, Great Hucklow
- Slater's Engine Mine, Bradshaw Lane, Foolow

- Silence Mine, Old Grove Mine and New Grove Mine appears to be underneath the current working area

The Written Scheme of Investigation required under the recommended condition should include a commitment that the Company will undertake rescue excavations of any surface features that might be affected by subsidence.

*Officer comment: Given that the development is ongoing and the application is a section 73 application, would need to alter the suggested wording of condition by requiring archaeological monitoring programme within a set period of planning permission being granted, e.g. three months.*

**PDNPA Ecology: (Initial response)** Concern over potential hydrological impacts and lack of information to support assertions.

**Ecology (Second response)** Having reviewed the additional information, the issues raised regarding water quality could be dealt with under a water quality monitoring scheme as suggested in the response from the Environment Agency (01/11/2013).

**PDNPA Landscape: (First response)** No objection to the proposed time extension for the mine. As far as the restoration scheme is concerned it will be necessary to ensure that all hard surfacing (both solid and loose materials) is broken up to relieve any compaction that has occurred over the years. If this is not done then there will be poor grass growth and water retention (although this may be good for wildlife).

**Landscape (Second response)** No landscape objections.

**PDNPA Rangers:** No response received.

**Foolow Parish Meeting:** No comment to enter on this application.

**Stoney Middleton Parish Council:** have no objections in principle to the renewal consent application. Concerned about the increased amount of traffic which will potentially enter Cavendish Mill if the application is granted. The Parish Council cannot see that any provision is to be made for road cleansing within the Mill area. Deposition of mud on the highway has been a severe problem in the past when the Mill has been in full production. The promised wheel wash at the top road crossing to the stockpile has never materialised and the problem with water running onto the highway from the bottom sump has never been properly addressed. This road is used on a daily basis by villagers who complain that in winter their cars are covered in mud and in summer there can be problems with dust generation. If this application is approved the Parish Council would like to see conditions imposed to make sure that the highway is kept as clean as possible.

**Grindleford Parish Council:** No response received.

**Highlow Parish Meeting:** No response received.

**Hucklow Parish Council:** No response received.

**Eyam Parish Council:** No response received.

**Abney and Abney Grange Parish Meeting:** No response received.

**Calver Parish Council:** No response received.

## Representations

There have been four objections received in respect of the development. One objector is a local resident concerned about the impact of increased traffic on amenity, particularly horse riders. A further objection is from a local resident expressing concern over blasting from the mine causing their building to experience tremors. The third representation is concerned with noise from the mine compound combined with operations being undertaken in unsociable hours (referring to the permitted hours in the mine compound between 06:00 hours and 22:00 hours Monday to Friday and 08:00-12:00 noon Saturdays), stating the peaks in noise could be reduced by better sound barriers or other noise reduction methods. The fourth representation asserts that an application of this size with clear negative environmental impacts would need an EIA and details of its effects on underground water systems, and that the increase in HGV traffic in the locality is significant and requires full assessment. (*Officer comment – the negative EIA screening opinion is reported on page 4 of this report*)

A letter of support has been received from Friends of the Peak District, who have considered the application and in principle support the continuation of underground extraction from Milldam Mine, subject to the necessary conditions being imposed to protect local amenity, in particular from subsidence and blasting effects and the impact of traffic movements associated with the transfer of ore to Cavendish Mill. FoPD have previously lobbied strongly for a shift from open cast to underground operations for fluorspar extraction in the National Park, so as to protect nationally important landscapes, commensurate with national policy. This is the context of our support for this application.

## Planning policies

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the development plan unless material considerations indicate otherwise. In relation to this application, the development plan comprises the Authority's Core Strategy 2011 and saved policies in the Peak District National Park Local Plan 2001. The relevant policies and the main material planning considerations that must be taken into account when considering this application are set out below.

Core Strategy (2011) policies: GSP1, GSP2, GSP3, GSP4, DS1, L1, L2, L3, MIN1, MIN2, MIN4, T1, T4

Local Plan (2001) saved policies: LM1, LM9, LC1, LC15, LC16, LC17, LC19, LC21, LC25, LT9

### National Planning Policy Framework

The NPPF was published on 27 March 2012 and replaced a significant proportion of central government planning policy with immediate effect. The Government's intention is that the document should be considered to be a material consideration and carry particular weight where a development plan is absent, silent or relevant policies are out of date. Policies in the development plan provide a clear starting point consistent with the National Park's statutory purposes for the determination of this application. The Authority has considered the relationship between the Core Strategy and the National Planning Policy Framework and resolved that they are consistent. This application does not raise matters that suggest otherwise.

As a material consideration in planning decisions, the NPPF recognises the special status of National Parks and the responsibility of National Park Authorities, as set out in the National Parks and Access to the Countryside Act 1949 (as amended). In line with the requirements of primary legislation, paragraph 14 of the NPPF recognises that in applying the general presumption in favour of sustainable development, specific policies in the Framework indicate that development should be restricted, for example, policies relating to National Parks. Along with the need to give great weight to considerations for the conservation of wildlife and cultural heritage, paragraph 115 of the NPPF confirms the highest status of protection in relation to landscape and scenic beauty, reflecting primary legislation. It states that further guidance and information, including

explanation of statutory purposes, is provided in the English National Parks and the Broads Vision and Circular 2010.

For minerals specifically, the NPPF (paragraph 144) states that when determining planning applications local planning authorities should (*inter alia*):

- give great weight to the benefits of the mineral extraction, including to the economy;
- as far as is practical, provide for the maintenance of land-banks of non-energy minerals from outside National Parks;
- ensure no unacceptable adverse impacts on the natural and historic environment, human health, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;
- ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties;
- provide for restoration and aftercare at the earliest opportunity to be carried out to high environmental standards.

### Assessment

In principle, extraction of fluorspar ore by underground mining is supported by Core Strategy policy MIN2 (Fluorspar proposals). This policy makes specific reference to the reserves at Milldam and Watersaw mines. In addition, minerals policy MIN4 (Minerals Safeguarding) states that the mineralised vein structures relating to Milldam Mine (and Watersaw Mine) will be safeguarded from sterilisation by non-mineral surface development. The supporting text in the Core Strategy identifies the above-mentioned two underground sources as giving access to considerable resources of high grade fluorspar ore, both of which can be operated in an environmentally sensitive way.

Further guidance on what types of development may be appropriate in settlements and in the countryside is provided for in policy DS1, which seeks to direct development to the most sustainable locations based on a range of criteria. In all settlements, and in the countryside outside the Natural Zone, the policy specifies a range of developments that are acceptable in principle, which includes mineral working. This is subject to the need to ensure that the principles contained within policy DS1 be considered in relation to other relevant and specific core policies of the plan.

The proposal constitutes mineral development which is 'major development' as defined in the Development Management Procedure Order (2010). The Core Strategy general spatial policies provide overarching principles for spatial planning in the National Park. They relate closely to the delivery of National Park purposes to ensure that the valued characteristics and landscape character of the area are protected. Section E of policy GSP1 states that, in securing National Park purposes, major development should not take place within the National Park other than in exceptional circumstances. It goes on to state that major development will only be permitted following rigorous consideration of the criteria in national policy, and that where such a proposal can demonstrate a significant net benefit, every effort to mitigate potential localised harm and compensate for any residual harm would be expected to be secured.

The reference in Core Strategy policy GSP1 to national policy can be found in paragraph 116 of the NPPF, which indicates that planning permission should be refused for major developments in designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest. Consideration of such applications should include an assessment of:

- The need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy (*Need*);
- The cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way (*Alternatives*); and

- Any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated (*Environmental impacts*).

The Authority, through adopting its Core Strategy in 2011, has already acknowledged that major proposals for underground ore mining may be able to demonstrate some of the exceptional circumstance tests in terms of Core Strategy policy GSP1 and paragraph 116 of the NPPF, in view of the limited availability of alternative sites in England and the importance of fluorspar to the UK economy. The Core Strategy states that the importance of the fluorochemical industry may well be considered sufficiently exceptional to continue to supply fluorspar ore as a departure from the overall strategy to run down the supply of minerals from the National Park, provided that individual schemes can be developed underground.

#### Need for the development

Fluorspar is a rare industrial mineral which is found within the Southern Pennine orefield. Its distribution is synonymous with the Peak District. It is found exclusively in mineralised veins within carboniferous limestone set within the attractive, ecologically and historically rich landscape of the National Park. The industry therefore operates within a very sensitive landscape. In the NPPF, fluorspar is one of several minerals referred to in Annex 2 as being of local and national importance. The NPPF (paragraph 146) requires that mineral planning authorities should plan for a steady and adequate supply of industrial minerals by (*inter alia*):

- Co-operating with neighbouring and more distant authorities to co-ordinate the planning of industrial minerals to ensure adequate provision is made to support their likely use in industrial and manufacturing processes;
- Encourage safeguarding or stockpiling so that important minerals remain available for use.

Policy MIN4 provides the safeguarding element required by the NPPF. Policy MIN2 provides for a steady supply [of fluorspar] through a permissive policy for underground working, which this application clearly addresses. The proposed continuation of operations at the mine for a further 15 years would help to provide a continued supply of indigenous fluorspar over that period. It is understood from the applicant that the increased output would enable BFL to potentially source up to approximately 50% of its ore requirement from underground mining based on current anticipated production figures. The applicant states that this would also assist in their adherence to a legal obligation connected with another of their (opencast) fluorspar operations at Tearsall Quarry. The Section 106 agreement accompanying the Tearsall planning permission has a clause whereby 15% of Cavendish Mill's ore requirement is to be sourced from underground sources for the duration of the Tearsall open pit consent. Tearsall commenced operations in June 2013 and is currently operational. Milldam mine is recognised by all parties as currently the only viable underground source to meet this obligation in the short to medium term, thereby a refusal of this application would render the applicant unable to meet this legal commitment.

The Authority has already acknowledged, through adoption of policy MIN2, the support in principle for the continued operation of the Milldam Mine in order to secure the supply of fluorspar. The applicant indicates that the development is part of its overall long term development strategy for re-establishing viable fluorspar mining in Derbyshire. Therefore it is essential to maintain the underground mining operations at Milldam. In doing so, they seek to maintain the life of the mine and to safeguard jobs in the locality. In view of the above discussion, it is considered that there is a demonstrable need for the development.

#### Alternatives

The rationale behind Core Strategy policy MIN2 is to promote a progressive shift towards a secure supply of fluorspar from underground sources, moving away from opencast mining, which is deemed to have far greater potential environmental impacts, particularly in landscape and visual terms. Policy MIN2 part D underlines this policy direction by stating that proposals for opencast mining of fluorspar ore will not be permitted. The supporting text in the Core Strategy indicates that most of the higher grade fluorspar ore in the Peak District that is capable of being

worked by opencast methods in environmentally acceptable locations has either been extracted or already has the benefit of extant consent. Therefore, opencast extraction of fluorspar is not a viable alternative to the continuing underground development proposed here, since it would run contrary to policy.

Whilst fluorspar deposits are known to extend into the Peak District on the fringes of the National Park (within the jurisdiction of Derbyshire County Council), there are no currently active underground or opencast fluorspar operations in the DCC area.

Fluorspar is also located within the Northern Pennine orefield around Durham and that area does have some history of previous fluorspar extraction. However, extraction from that orefield ceased in 1999 and there are no known permitted reserves or active sites in that area now. Furthermore, with only one fluorspar processing facility existing nationwide (that being BFL's facility at Cavendish Mill, Stoney Middleton), there is little scope of fluorspar production from the Northern Pennine orefield recommencing, since the costs of transporting the ore to the processing facility would currently be economically prohibitive. Taking into account the above factors, it is concluded that there are currently no viable alternatives to the proposed continuation of operations at Milldam Mine which would ensure a steady and adequate supply of fluorspar.

### Environmental impacts

Accepting that an exceptional circumstance is demonstrated and that the need and alternatives assessment are sufficiently addressed by the application, the third strand of the NPPF and GSP1 major development test is an assessment of any detrimental effects on the environment, the landscape and recreational opportunities, and the extent to which those effects could be moderated. This ties in with the assessment of the development against policy MIN2 (part A) which states that the Authority will encourage and support the continued extraction of fluorspar ore by underground mining where the environmental impacts can be appropriately mitigated. There are several areas to be considered in terms of environmental impact, which are set out below.

### **Traffic**

Assessment of the proposals and advice from the Highways Authority indicates that they will not result in significant adverse impacts to highway safety or to the surrounding highway network. The current planning permission restricts the number of daily HGV movements to 24 (12 in and 12 out) and this would be increased as a result of the proposals to 58 (29 In - 29 Out, Mon-Fri) and 28 (14 In - 14 Out, Sat). However, subject to improved visibility at the site entrance, the nature and quantity of HGV traffic movements to and from the site are acceptable without any detriment to highway capacity.

The routing of the lorries using the private haul road onto the public highway and then away from the village of Great Hucklow will ensure that the impacts on residential amenity are minimised. The movement of lorries onto the Great Hucklow to Windmill Road, and then onto the B6049 and A623, demonstrates that the development is readily accessible to the Strategic and Secondary road network. It is not considered that the number of daily HGV movements to and from the site will have a detrimental impact on the environment or amenity of the area. Therefore, it is considered that this aspect of the development is in line with Core Strategy policies T1 and T4, and with saved Local Plan policies LM1 and LT9. The issue raised by Stoney Middleton Parish Council about mud on the road is directly linked with Cavendish Mill, where there are vehicular movements associated with numerous developments, and not just restricted to vehicles associated with Milldam Mine. Therefore, conditions controlling this cannot be applied to a new permission. However, Authority officers will engage in discussions with the applicant about measures which could be introduced at Cavendish Mill to deal with this situation.

### **Land instability/surface subsidence**

A potential impact of underground mining is subsidence, which may cause damage to surface structures, affect slope stability or impact on the workings within the mine itself. The strength of the limestone in the working area means that for most parts of the mine it will form adequate

support that will span the proposed workings and will not require any additional reinforcement to prevent collapse or subsidence. However, if the geology requires it, then rock bolts, steel arches, and other measures can be used to provide long term support and stability. In areas where the interface with shale is encountered, additional support measures will be required and these will take the form of an Artificial Crown Pillar (ACP) comprising roof and rib bolting with steel roof and rib mesh, which are fixed with resin and grouting and sprayed with concrete. This approach is designed to provide stability for the ongoing mine operations but also provide a sound and secure foundation that will remove the risk of surface subsidence. The applicant considers that this method of working will also remove the potential risk of surface subsidence resulting from the disturbance to historic mine workings at levels between the proposed Milldam Mine workings and existing ground levels.

The issue of subsidence and the potential for it to affect surface features was considered during the determination of the previous renewal application (NP/DDD/1298/620) and found to be acceptable, with conditions imposed to address any future subsidence occurrences. Condition 15 of the 1999 permission required the operator to cease mineral extraction within any affected subsidence area, submit a revised scheme of working, undertake appropriate remedial action and to agree a programme for its implementation. Following the recent ground collapse in December 2013, and in line with the requirements of condition 15, the operating company ceased working in the specific part of the mine affected by the ground collapse and has since worked with the Authority to achieve a sustainable restoration of the collapsed area (reference NP/GDO/0614/0686, which details the GPDO submission for infilling, approved on 12/06/2014). If Members are minded to approve this application, then this condition would be re-imposed to address any future surface subsidence events, notwithstanding that the HSE have commented that the risk should be minimal if the revised working practices are adhered to. Nevertheless, the recent ground collapse has demonstrated a need to control this aspect of the development and the applicant has indicated that they are willing to undertake periodic above ground visual inspections above areas where the mine is operating. This can be included as a condition.

In considering the proposal to continue operations at the mine for a further 15 years, and taking into account the HSE's view that the proposed working methods for both the eastern and western working areas are acceptable from a geotechnical and surface subsidence stance, then it is considered that the development could proceed without creating an increased risk of subsidence to surface features. The permission would have to be subject to the implementation of a scheme for monitoring surface features for the duration of the development and the re-imposition of a condition to require the implementation of a formal procedure for reinstatement of the land and reappraisal of working practices in the event that serious subsidence does occur. Subject to the imposition of these conditions, the development is considered to be consistent with Local Plan policies LM1 and LC25.

### **Landscape/Visual Impact**

It is not considered that the proposed extension of time or amendments to the other conditions would result in a detrimental landscape or visual impact to the surrounding area or affect the open character of the surrounding countryside. Whilst part of the application area falls within the Natural Zone, the identified area for working is located some distance away from the Natural Zone area. Therefore the management of the Natural Zone land is not affected by the proposed development. In addition, the majority of workings associated with the development are underground, with no discernible impact on landscape or visual amenity, and the limestone 'waste' associated with the mine workings is backfilled and stored below ground. This method of working would not change as a result of the proposals. Surface structures associated with operations at the mine include a site office, an electricians store, a substation, canteen facility, maintenance/fitting workshops, and an ancillary store just off the private haul road (which was the subject of a separate planning permission recently NP/DDD/1213/1117). The site is afforded a high degree of visual screening when viewed from all points of the compass by virtue of existing vegetation and well established screening bunds. The limited scale of the structures within the compound are proportionate in the context of this location.



Following the completion of mineral operations at the site, the surface areas will be restored in accordance with a restoration scheme. The applicant has submitted an 'in principle' restoration plan and it is recommended the imposition of conditions relating to restoration, landscaping and the aftercare of the restored surface areas would ensure that those parts of the site affected by the development would be capable of being restored to the highest standards. This addresses Natural England's comment over the need to ensure biodiversity enhancement which can be sought when agreeing the details of the final restoration scheme. This is in line with Local Plan policies LM1 and LM9, and Core Strategy policies L1, MIN1(part B) and GSP2. Whilst part of the application area falls within the Natural Zone, exceptional circumstances exist in allowing the development to take place as the actual area identified for working in the application does not fall within, or have a direct impact on the Natural Zone. Consequently, the development is considered to be in accord with policy LC1. Overall, it is considered that the impacts upon the surrounding countryside would be acceptable and would accord with the development plan without any adverse impacts on the valued characteristics of the National Park.

### **Noise**

Due to the nature of operations at the site, where the mineral extraction is carried out underground, the noise impacts associated with the development are limited to stockpiling and loading operations, vehicle maintenance, HGV and operatives' vehicle movements, and other associated activities undertaken within the mine compound. The nearest noise sensitive properties to the compound are Milldam Cottage (owned by the applicant, without residents), and Artis Cottage and Bank Cottage (both approximately 100m to the south, on the western edge of Great Hucklow village).

The 1999 permission contains two conditions relating to noise. The first stipulates a need to ensure vehicles, plant and machinery are appropriately maintained at all times, fitted with silencers and not operated with the covers open or removed. The second condition sets a 'corrected' noise limit of 46dB LAeq (1hr) as measured from the nearest noise sensitive property, with a requirement to notify the MPA if these levels are exceeded and agree a remedial programme to address the problem. The advice from the EHO in this regard is that the current condition specifying noise levels is unenforceable and needs amending. The EHO response also advised that a noise impact assessment be undertaken. This request arose coincidentally with concerns over noise levels from residents in close proximity to the mine compound. In response, the applicant commissioned a noise survey in May 2014, which the EHO has subsequently assessed and commented on.

Government guidance in respect of noise associated with mineral operations (in the NPPF and the Planning Practice Guidance document) requires MPAs, in determining applications for minerals development, to ensure that unavoidable noise impacts are controlled, mitigated or removed at source with appropriate noise limits being established for mineral extraction where it would occur in close proximity to noise sensitive properties. The guidance suggests that, subject to a maximum of 55dB(A)LAeq,1h(free field), mineral planning authorities should aim to establish a noise limit at the noise-sensitive property that does not exceed the background level by more than 10dB(A).

In reviewing the noise survey data and taking account of government guidance, the EHO has recommended that a sequential set of noise limits for different time periods are imposed to take account of the different sensitivities in noise at different times of the day. The recommendation is that daytime noise (0700–1900 hours) should not exceed 47dB(A)LAeq(1hr)(freefield); evening noise (1900-2200 hours) should not exceed the background noise level by 10dB; and night time noise (2200-0700 hours) should not exceed 42dB(A)LAeq(1hr)(freefield) as measured at the boundary of the nearest noise sensitive property or at an equivalent distance. It is considered that imposing these limits by condition would be reasonable and would provide effective control over noise emissions from the compound. This approach would address the elevated noise levels which have been noted by complainants at shift changeover between 0600 hours and 0700 hours through the imposition of a lower threshold of 42dB prior to 0700 hours.

In addition, the EHO has recommended that a condition be applied which states that all vehicles operating on site must be fitted with broad band (white sound) reversing alarms or an equivalent system to eliminate the disturbance that can be caused by traditional reversing alarms which are tonal in nature. A further recommendation (arising from the EHO's own observations when undertaking some independent noise monitoring) is that loading of vehicles (presumably loading of fluorspar into HGVs) should not commence until 0800 hours, since that particular activity was noted during the independent monitoring as giving rise to adverse noise emissions. This is also one of the activities mentioned by complainants as giving rise to noise nuisance, alongside underground vehicles exiting the mine and entering the compound at 0600 hours. It is considered reasonable that both these matters could be adequately controlled through the imposition of appropriate conditions.

In view of the above discussion, it is concluded that noise levels from the compound can be adequately controlled in line with the advice received from the EHO and taking account of the specific noise issues which have been raised recently. The development is therefore in accordance with policy LM1 and is consistent with NPPF guidance on control of noise emissions from mineral workings.

### **Blasting**

Under permission NP/DDD/1298/620, blasting at the mine is controlled by conditions 30 – 32 inclusive. Condition 30 restricts blasting to 6.00 am – 10.00 pm Mondays to Fridays and 6.00am - 12.00 noon Saturday, with no blasting or drilling operations permitted on Sundays, Bank or Public holidays. Condition 31 relates to blasting levels and requires that no individual blast shall exceed a peak particle velocity (ppv) of 2mm/second at, or near, the foundations of any sensitive building or residential premises. Condition 32 prohibits any secondary blasting except with the written agreement of the MPA. The applicant has not sought any changes to these conditions.

Members should be aware that the Authority, in conjunction with the EHO, has responded to two complaints in relation to blast vibration levels since operations in the mine recommenced in May 2013. Complaints were received in September 2013, and February 2014, both of which originated from the occupiers of the same property, on Bretton Edge.

In October 2014 a blast vibration monitor was installed at the property by the EHO and the operator also commenced their own blast monitoring. With the exception of the blast related to the complaint made in February 2014, which registered 2.4 on the applicant's vibration monitor, all other blasting events which were monitored fell below the 2.0 mm/second threshold level, with most blasts resulting in the monitor not triggering (where the monitor is set to trigger at >1mm/sec).

The EHO has commented that the existing permission has exceptionally generous permitted hours of blasting and indicates that they are considerably less stringent than they would recommend for a new permission. The recommendation is that the permitted blasting hours are amended to 8am-6pm Mon-Fri and 8am-1pm Sat with no blasting Sundays and Bank Holidays. An alternative option has been put forward by the EHO whereby if blasting is considered to be appropriate outside these hours then additional limitations are imposed in some way to protect residential amenity.

Correspondence was received from the applicant in response to the EHO concerns which emphasised that, due to the variable nature of mining, despite the fact that most blasting is undertaken at the end of the two main production shift breaks (10am – 10:30am and 6pm - 6:30pm), this is not always the case and any restriction in the terms raised by the EHO would have a potentially significant impact on productivity. The applicant has also raised the issue that the current blasting limit of 2mm/second is well below the daytime limit set out in the relevant British Standard guidance, which recommends values of 6.0 mm/sec (8am – 6pm) and 4.5 mm/sec (6pm – 8pm and 7am – 8am). The guidance quotes the figure of 2.00mm/sec as being the appropriate limit to apply for night time blasting (9pm – 7am). On this basis, the applicant argues that if a more restrictive condition is put on a permission concerning the hours of blasting

then there should be compensatory increase in blasting vibration limits which are consistent with BS guidance to ensure that the operation is not unreasonably compromised. However, the applicant has clearly stated a preference to maintain the existing conditions as they are without any changes.

Whilst noting the EHO's concerns in terms of generous permitted blasting times, the reverse is true in respect of blast vibration levels, where the operators are required to adhere to the most stringent recommended level of 2mm/second throughout the daily operation, a level which is usually only applied to night time blasting between 9pm and 7am. In reviewing the blasting conditions, it is your officers' opinion that maintaining the conditions in their present format is the most appropriate way forward. If stricter time limits were imposed, without amending blast limits, this would likely lead to a challenge from the applicant. Increasing the blasting vibration limits to reflect British Standard guidance (to 4.5 mm/sec and 6.0 mm/second), despite a reduction in permitted hours, would potentially create more complaints than at present. Therefore, operating at the low (night time) vibration limit across all hours of working is considered preferable in terms of controlling the impacts of the blasting. In any event, the majority of blasts are undertaken at 10am and 6pm. Additionally, given the mining history of the area and the prevalence of former lead mine workings in the area, increasing the blasting vibration limits may potentially lead to increased risk of disturbance to those features.

The EHO has also recommended a condition requiring the company to undertake monitoring of the blasts in the event that complaints are made in consultation with the Mineral Planning Authority. The applicant has included a commitment to undertake monitoring in any event, and this would therefore be a reasonable condition to impose. In terms of the notification procedure for blasting outside normal working hours recommended by the EHO, it is considered that with the operator's requirement to adhere to the most stringent blast vibration level of 2mm/sec across all their permitted hours of blasting, combined with the requirement to monitor every blast and maintain records of each event, the notification procedure sought would be unduly onerous. In conclusion, subject to the re-imposition of conditions concerning blasting times, blasting levels and secondary blasting, in addition to a requirement to undertake a programme of blast monitoring as per the details set out in the application, the effects of blasting in the mine can be appropriately mitigated. Therefore the development is considered to be in line with policy LM1.

### **Hydrology and ecology**

The surface area of the mine within which the working is concentrated is not crossed by any significant water features. However, there are a number of shalgates and soughs in the area. These features provide enhanced drainage opportunity across the water catchment. The geology within which the workings take place is predominantly limestone. Groundwater is concentrated and encountered within the veins of fluorspar. Currently, groundwater is encountered at two locations within the working area. At these two points, water is collected and funnelled into an internal pipe network which is fixed to the roof of the tunnels. The groundwater is pumped from the east and west pump lodges in an easterly direction to a discharge point into the Ladywash workings to maintain a dry environment in the working areas. The discharged water finally surfaces at Moorwood Sough, located 3.5 km to the south west of the outflow point in Stoney Middleton, by which time it has integrated into the wider groundwater catchment area. The operators have historically undertaken turbidity monitoring of the discharge water which also provides some indication as to whether the mine is having any detrimental impact on groundwater. It is recommended that if permission is granted, this turbidity monitoring continues. Therefore, a condition can be imposed to reflect this requirement.

Having commissioned a water quality assessment of the inflowing and outflowing water passing through the groundwater management system at the mine, the applicant has concluded that the operations have no discernible impact on water quality. The Environment Agency has recommended that a scheme of water quality monitoring be implemented in order to confirm that the quality of water being discharged and to ensure that no pollutants are entering the water environment. The PDNPA ecology team supports this view. This requirement can be imposed via a condition.

In the 1999 permission, there are two conditions (33 and 34) which relate to discharge of water from the mine. However, these conditions were drafted in the early stages of the mine development when water was pumped and discharged westwards into the Bradwell Brook catchment, not eastwards as now happens. Therefore, it is proposed to delete these two conditions since they are no longer relevant to the groundwater management system now in place at the mine.

With the exception of the continuation of activities in mine compound, all mineral extraction operations take place below ground. Therefore, it is unlikely that the proposed extension of time would directly impact upon the hydrological and ecological features above ground level. The most significant potential impacts would appear to be related to any which might arise from subsidence, should subsidence occur. Noting the findings of the geotechnical reports and the HSE consultation response, which indicates that the proposed methods of working are not likely to result in subsidence, it is reasonable to conclude that consequential impacts to hydrological and ecological interests are unlikely. I find no reason to doubt the conclusions provided in the reports and note the comments of the Environment Agency and Natural England in this respect. Subject to the imposition of conditions requiring regular monitoring of water quality and turbidity, and measures to ensure that oils, fuels and chemicals are appropriately stored, the development is considered to meet with Core Strategy policy L2, the Local Plan policy objectives set out in LM1 regarding the control of environmental effects of mineral working and policies LC17, LC18, LC19 and LC21 concerning safeguarding nature conservation interests and control of pollution and disturbance.

### **Dust**

The proposed extension of operations at the mine for a further 15 years does have the potential to result in dust emissions. However, the potential for this to cause adverse amenity impact is minimal since the majority of operations are underground. At the surface, operations within the compound which could generate dust emissions include the handling, movement and storage of ore, and the loading and transport of ore from the site. There are no processing facilities within the site compound since all ore is taken to Cavendish Mill for processing.

The nearest dust sensitive properties are approximately 100m to the south, although the public right of way WD41/21/1 does run past the mine compound entrance. Therefore, users of that right of way may be temporarily affected if dust problems arise, but the impacts would be transitory. As a precautionary measure, a condition can be imposed to ensure that facilities (e.g. water bowsers) are available at all times on the site and should be used in the event that dust problems arise within the mine compound. Additionally, the EHO has advised that a condition requiring the sheeting of lorries when being hauled on the public highway be imposed and this has been included within the skeleton condition details in this report. In conclusion, the development can be undertaken with appropriate safeguards to ensure that dust emissions do not adversely impact on the environment, in compliance with Local Plan policies LM1 and LC21.

### **Archaeological/cultural heritage interests**

The application does not raise any significant archaeological issues that cannot be addressed through the imposition of a suitable condition for archaeological monitoring, the wording of which has been suggested by the Authority's Senior Conservation Archaeologist. Although there are several Scheduled Ancient Monuments within the overall application site, none coincide with the actual area of working the subject of this application and will remain unaffected. The response from PDNPA Archaeology highlights that there are several sites of archaeological/heritage interest which could potentially be affected if there were any further subsidence events. However, the condition proposed will ensure that a detailed scheme of archaeological monitoring is implemented and sustained for the duration of the development, to provide sufficient mitigation for any adverse impacts on archaeological or cultural heritage features. The scheme will need to include a procedure to deal with any future subsidence events that may arise, where there is risk to surface features of archaeological or cultural heritage interest. However, the view from the HSE is that this risk can be minimised if the company adhere to their proposed working methods.

In conclusion, it is considered that the development is consistent with Local Plan policies LM1, LC15 and LC16, and with Core Strategy policy L3.

### **Conclusion**

The principle of the fluorspar ore mining at this site has been established for a number of years. The continuation of underground mining, the supply of fluorspar ore to Cavendish Mill and the production of acid grade fluorspar to the chemical industry are clearly supported in the Authority's Core Strategy. Notwithstanding the relatively limited number of complaints referred to in this report (concerning noise and blasting), the mine appears to have operated for a considerable period without causing any significant impacts on the local environment. The surface subsidence event in December 2013 did occur in an area where the mine operations coincided with old workings. The response from the HSE concluded that the mine operations were a contributory factor. However, the affected area below where the subsidence occurred has since been abandoned by the operator, and is now excluded from the development proposals. Moreover, the revised methods of working which were submitted with the application have been scrutinised by the HSE who have not raised any objections.

It is considered that the measures set out in the application, which include future working and restoration subject to modern conditions as recommended, would serve to ensure that the mine can continue to operate with the necessary planning safeguards in place, until the completion of the development. The section 73 application provides an opportunity to update and amend conditions as a response to consultation responses and updated working practices and procedures. Whilst the mining and associated activities would continue for a further 15 years, it is considered that the proposals are environmentally acceptable, subject to the recommended conditions being applied to the planning permission. It is considered that the recommended conditions satisfy the concerns and requirements of consultees and the representation received, and that the proposal is in line with Core Strategy policies GSP1, GSP2, GSP3 and GSP4.

On the basis of the above, and in light of all relevant development plan policies and other material considerations, I consider that the development is acceptable, subject to appropriate conditions, and recommend that the application be approved accordingly.

### Human Rights

Human rights issues have been considered and addressed in the preparation of this report.

### List of Background Papers (not previously published)

None

