Our ref: SV/2017/109712/06-L01
Your ref: 17/0122/FDMAJM

Date: 7 June 2019

Gloucestershire County Council
Development Control
Shire Hall Westgate Street
Gloucester
Gloucestershire
GL1 2TH

FAO: Jason Betty

Dear Sir

FORMAL REPLY TO REG25 - ADDITIONAL INFORMATION CONSULTATION - EXTENSION OF STOWE HILL QUARRY & RETENTION OF MINERAL PROCESSING PLANT AT CLEARWELL QUARRY. CLEARWELL AND STOWE HILL QUARRIES, STOWE GREEN, ST BRIAVELS, GLOUCESTERSHIRE, GL15 6QH

I refer to your letter of 14 January 2019 consulting us on further information in relation to the above proposed development. As you are aware, we have been in discussion with you over the last few months, in relation to the complexities of the proposal to assist understanding and your decision making.

The further information available in relation to the Environmental Statement (ES) relates to:

i. Non-technical summary dated 19/12/2018 supersedes non-technical summary 14 May 2018.
ii. Environmental Statement: Additional Environmental Information Report December 2018 seeks to address the objections made by Natural England and the Environment Agency both dated 29/06/2018.

Following a review of the above, there is still some uncertainty on one of the key areas of concern the epikarst recreation mitigation at this stage, as confirmed in Breedon's response, it is unproven/unmonitored as part of the EIA. As part of the proposed mitigation/suggested betterment, subject of this submission, we would not be in a position to object but highlight those aspects of uncertainty and leave it with you as decision maker to ensure that the suggested control measures are robust and valid/effective in securing that detail and ensuring no impact upon controlled waters and importantly the Slade Brook SSSI.

There will be some important details to discuss as part of any control measures – section 106 and planning condition wording, including the parameters for epikarst recreation (prior to development works to demonstrate effectiveness etc.) and how we

ensure certainty on that approach, and sufficient testing/avoidance of any impact upon Slade Brook SSSI and groundwater in the underlying aquifer.

As a general point, there seems to be some confusion over what could be included within the S106 and what is best handled via planning conditions. The applicant refers to discussion on these aspects as part of the determination process.

It will be essential that some of the key conditions have appropriate mechanisms to react appropriately to any impact or concern that may be encountered for example stop mechanisms in place to protect the water environment including groundwater and the Slade Brook SSSI springs from impact. This is especially important concerning the proposed phased restoration of the existing quarry (draft proposed condition F) which should take place within a *two year* period, with epikarst recreation a major part of this strategy. We would wish to be part of the approvals process. We understand that such conditions would be enforced by the LPA.

Recent discussion has focussed around the need for the variation application (17/0110/FDMAJM) to be amended so that it is consistent with the suggested way forward i.e. this application and blue line of DF223/X should be in line. The separate variation application has sought to vary the Epikarst restoration to assist this.

Our letter of 22 November 2017 highlighted this issue in so far as Condition 46 of Planning Permission Ref: DF/2238/X requires 'the creation of an epikarst layer as part of the profile of the *restored* quarry' and previous discussions with the applicant and consultants as part of ongoing planning proposals suggested this, as an important part of the restoration plan for the quarrying, particularly after the ongoing discussions concerning Slade Brook SSSI, would help demonstrate certainty going forward.

Risk context

The risk profile and case presented within the Environmental Statement - Additional Environmental Information Report, demonstrates that this relatively small extension would appear to be in its overall risk context a low risk application based on 15 years of monitoring data not indicating any change at the Slade Brook springs tufa SSSI which is still in *favourable* condition as designated by Natural England.

Whilst we cannot argue with this regarding any indicators for current impacts upon Slade Brook SSSI it is important that caution is still applied to any future proposals in the vicinity of Slade Brook SSSI due to possible lag times within the groundwater system. The enhanced proposals to collect monitoring data is welcomed in understanding any ongoing risk and it is agreed that a S106 proposal maybe the most appropriate mechanism to secure this.

This may inform future proposals at this location which we would not be able to support based on the available information at this stage.

To date it has been stated that only 33% of the existing quarry has been restored and that little has been undertaken in the quarry floor bringing the effectiveness of the restoration into question to date, linked to the existing permission. However, we understand that the materials required for ongoing restoration will come from the Phase 1 extension application area and could provide a betterment to the current restoration strategy which we support.

The epikarst recreation is a key requirement for the mitigation of quarrying into the extension area and the trials proposed will greatly assist in understanding the best

approach for constructing the epikarst in the right way to make it most effective in providing the right chemistry for the receiving groundwater's. Whilst it is currently unproven and not demonstrated up front within the EIA and/or assisted by the limited programme of restoration works carried out as part of the extant permission, the applicant is proposing to agree this as part of a scheme for epikarst recreation (restoration). This will help provide certainty or otherwise works in the extension area should cease.

Comments on 'suggested conditions':

Condition F – Scheme of restoration including Epikarst recreation

This needs to tie up with the scheme of monitoring (condition H) perhaps through the programme of implementation) and provide for a sequencing plan, and itself have some control measures to demonstrate the effectiveness of the epikarst recreation. The scheme should have some measures to stop work IF it is not working and to either remedy through alternatives or cease works to prevent further possible potential impact 3(perhaps linked to condition G to 'review' the epikarst works).

This should be used along with a section 106. This should include appropriate clauses to cover the above scenarios and options.

We consider that before development can commence initial phases of restoration, including quarry floor (noting exclusion of drainage channels, haul roads etc) should be completed ***within two years***. This will ensure that areas of open quarry floor are minimised and that the quarry restoration is now promptly actioned. Plan 251L-01-16 indicates areas that will be restored at the end of phase 1, however, we believe that these areas should be restored within two years of commencement.

Regarding the frequency of meetings of the Management and Monitoring Steering Group (MMSG) we would recommend that these are undertaken initially on a much more frequent basis than annually to assess how the monitoring programme is going and to discuss site issues.

We agree that each phase of restoration should be reviewed before next phase initiated, and modifications made if required.

Conditions F and H (monitoring scheme) needs to include for a 'what if…?' scenario. If it doesn't work or shows impact then works should perhaps cease, proposals to look at alternatives, remedy of such should be undertaken.

A Scheme for monitoring could consider: "*frequency and location of monitoring boreholes; method and nature of sampling. Thereafter monitoring shall be carried out and reviewed in accordance with the approved scheme.*

It should include the following:

If the restoration scheme and/or monitoring scheme approved under *'condition x'* shows any adverse risk of deterioration to …water features (groundwater and surface water quality) including the Slade brook SSSI, development should cease until proposals:

1. to investigate the cause of deterioration
2. to remediate any such risks
3. to monitor and amend any failures of the remediation undertaken, shall be submitted to the Local Planning Authority for their approval in consultation with

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the Environment Agency.

Condition G – a "review of restoration works" appears to review the works but doesn't have any further actions. It should seek to confirm the validity of the techniques and epikarst recreation. But again what happens if the review is not positive? What action could/would be taken?

Condition H - a scheme of monitoring should be agreed prior to commencement of development. We would expect to be part of those discussions along with Natural England as part of MMSG.

Working Depth (suggested condition I)
The revised submission acknowledges our previous concerns and accepts that groundwater level data collected in April 2018 exceeds 170m AOD.

We are satisfied that the working depth is controlled by two phases of operations and that further groundwater level data is to be collected to determine a safe lower working depth. We will not agree to a working depth which will compromise the protection of the aquifer and the Slade Brook SSSI and its springs.

Phase 2 should only commence to final working depth (to be agreed) following assessment of longer term groundwater level & rainfall data over a longer period of time. The depth of 170mAOD may not be appropriate but monitoring data will demonstrate this and final working depth will be agreed through the Management and Monitoring Steering Group (MMSG) to ensure protection of the aquifer and the Slade Brook SSSI tufa formations and spring outflows. Until demonstrated we would wish to see a condition imposed to ensure that the working depth shall be no lower than 176m AOD unless monitoring demonstrates an impact and to inform a maximum potential working depth of 170m AOD. Monitoring may be carried out to **inform a revised depth.**

Condition L – We note the suggested Pollution Prevention and Control scheme including a karst conduit protection scheme which includes for actions if for example a significant conduit is encountered. The details of the karst conduit protection scheme should be agreed up front. The above is in the interest of protection of the water environment and Slade Brook springs SSSI.

Section 106
Although there may still be some uncertainties in the datasets held (and may always be with an application of this nature within this geology) the combination of enhanced monitoring data collection and S106/ planning condition controls through the MMSG process will make sure adequate monitoring, mitigation and appropriate assessment is undertaken to protect the Slade Brook SSSI on an ongoing basis throughout the lifetime of the quarrying into the Phase 1 extension area.

We would wish to be part of the Management and Monitoring Steering Group (MMSG), we have currently been omitted on page 2 of Appendix E - Suggested S106 & Planning Conditions chapter.

The scheme of monitoring is largely outside of the planning boundary and will need to be tied up effectively with any permission and the extant consent.

Survey / Monitoring of Slade Brook ecology

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Our letter of 29 June 2018 provided some comprehensive comments on WFD and the biodiversity and ecology of the Slade Brook SSSI. We recommended that ecological surveys be undertaken in the interests of the geomorphological diversity of the Slade Brook and its potential to support a wide range of fauna and the presence of a potentially isolated population of brown trout.

As confirmed in a previous reply, a study on the characterisation and condition assessment of petrifying springs with tufa formation in Gloucestershire undertaken by British Geological Survey states that calcareous springs are of great importance for a range of invertebrates. The literature review within the report makes reference to both terrestrial and aquatic species (crane flies, soldier flies, specialized snails and water beetles). The report also states that these waters have the potential to provide an important habitat for **white-clawed crayfish** due to the chemistry of the water supporting crayfish exoskeleton growth.

Linked to the monitoring of the quality of the brook, if you are minded to approve the application, we would recommend that the following be included, in the absence of the EIA providing this information.

- Ecological survey of the Slade Brook to provide for baseline and monitoring of effects and future trends.

The above is supported by the National Planning Policy Guidance, Paragraph: 016 Reference ID: 34-016-20140306, which identifies water quality as an issue particularly "where a development could indirectly affect water bodies, for example, as a result of new development such as…mineral workings". It also refers to relevant assessment of the "likely impacts of the proposed development (including physical modifications) on water quantity and flow, river continuity and groundwater connectivity, and biological elements (flora and fauna)".

This would need to form part of the offsite monitoring and seems reasonable in relation to Policy DC5 of your adopted local plan including point '3' – environmental enhancement (including habitat species protection and creation) and '4' – protection of national important sites; '5' – replacement of important environmental and landscape features, '8' – protection of other natural resources for example water environment, '9' – long-term management and restoration of site, after use and monitoring...'.

Wider benefits
Linked to the above, opportunities for further off site betterment as a way to help deliver environmental net gain and/or wider enhancement/protection for the Slade brook SSSI should be considered and would be welcomed, as discussed at our last meeting. This could be secured via a planning contribution perhaps towards a site condition report update programme and/or land management measures to help improve the catchment.

An option for biodiversity enhancement and/or as part of net biodiversity gain, the applicant as part of restoration could put forward the inclusion of suitably open water for white-clawed crayfish habitat as an ark site, given the above. The 'Ark Sites for White-Clawed Crayfish – guidance for the aggregates industry', Buglife, The Invertebrate Conservation Trust should be utilised to help plan this habitat.
https://www.buglife.org.uk/sites/default/files/Crayfish%20Ark%20sites%20guidance%20for%20the%20aggregates%20industry.pdf.

I trust that the above clarifies our position at this time.

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Yours faithfully

Mark Davies
Planning Specialist

Direct dial xxxx

cc. Land and Mineral Management

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