Dear Sir/Madam

EXTRACTION OF 25 MILLION TONNES OF LIMESTONE FROM THE EXISTING QUARRY FOR A PERIOD OF 9 YEARS, CARRYING OUT APPROPRIATE MITIGATION MEASURES AND TO RESTORE THE QUARY BY 2025 SHAPFELL LIMESTONE QUARRY, SHAPFELL, HARDENDALE, SHAP

Thank you for consulting the Environment Agency on this application, which we received on 15 April 2014. We apologise for the length of time it has taken to respond with our comments.

There are a number of aspects of the application, on which we require clarification or additional information from the applicant. There are also a number of matters on which we cannot make substantive comment until we know Natural England’s position. For these reasons, we object to the granting of planning permission and recommend refusal on this basis.

Our comments are in three parts:

- **Part 1** – matters on which we can make substantive comment now;
- **Part 2** – matters on which clarification or further information is sought from the applicant, in order to make substantive comments;
- **Part 3** - Matters on which we need Natural England’s position before we can make substantive comments or matters for Cumbria County Council to consider.

**Part 1 – substantive comments**

**Flood risk**

The quarry site is in Flood Zone 1, deemed at having a less than 1 in 1000 annual probability of flooding. We have no objection to the proposal on flood risk ground though note that existing surface water management protocols apply to any works and there should be no increase in flood risk off site as a result of any on site works and activities.
Environmental Management

Pollution Prevention Advice

The Water Framework Directive requires the restoration and enhancement of water bodies to prevent deterioration and promote recovery of water bodies and to conserve habitats and species that depend directly on water. Water bodies include groundwaters as well as surface waters.

To protect water bodies we would advise that the operator adopts pollution prevention measures detailed in our pollution prevention guidelines 6 Working at Construction and Demolition Sites which contains pollution control measures which are also relevant to quarry operations, including Section 1 Pollution Prevention Planning, Section 2 Drainage, Section 3 Excavations, Section 4 Materials Storage, Stockpiles and Exposed Ground, Section 5 Oil Use, Storage and Refuelling and Section 11 Incident response.

This can be downloaded directly at: https://www.gov.uk/government/publications/construction-and-demolition-sites-ppg6-prevent-pollution

These and further guidance can be downloaded on our web pages on the .Gov Website. https://www.gov.uk/government/organisations/environment-agency

Waste Advice


If any waste material is to be considered to be used on site, the operator will need to discuss this proposal at an early stage with Cumbria County Council and the Environment Agency even if it is to register a waste exemption to ensure that this is permitted under the sites permissions.

The applicant can find waste advice guidance on the .Gov website, or by contacting the Enquiries Team at enquiries@environment-agency.gov.uk or 03708 506 5064.

Part 2 – matters for clarification or further information from the applicant

The following matters of clarification or further information are sought from the applicant to enable the Environment Agency to appropriately consider the proposed development and its environmental impact.

Groundwater and Biodiversity

1. The 2013/14 water level data up to April 2014 to update the AMEC “Report to inform a Habs Regs Assessment – River Eden SAC“

2. The planning submission does not include the winter of 2013/14 with respect to quarry water levels, river flows and the analysis thereof. Given a wet winter period this may be of significance to our understanding.
3. There are several figures showing flow impacts to the rivers including 6.32, 6.36, 6.37, 6.38, 6.39, 6.40, 6.41, 6.62 & others. These appear to show that there is an impact on the River Eden SAC – including on the River Leith where there is currently "no water available for abstraction" (CAMS and Habs) and complete mitigation of flows is required. However please confirm which of these maps are without mitigation, which are with mitigation, and which show an in-combination effect with other abstractions. Additionally at what flow (Q) are these representative?

4. The reservoirs to be built for mitigation of river flows in the quarry are poorly defined, and of questionable adequacy in their capacity. It is not clear if the proposed construction would penetrate the mudstone layer forming the floor of the quarry, into the limestone beneath. This may cause problems if the lagoon needs lining, but may be subject at certain times to artesian water pressure from beneath the liner.

5. We are uncertain if there is a need for a “soft start” to any mitigation pumping i.e. to ensure that fish, crayfish etc can react to the increased flow and not be swept away for sudden flow increases?

6. There is a question over whether all the water discharged into a watercourse as mitigation will find its way downstream to the compliance point. Some of the water might not make it all the way there because it soaks into the ground where the water table has been dropped below the watercourse. If Natural England wants a different delivery to meet ecological needs than that currently offered it may influence our opinion on deliverability.

**Part 3 – matters on which we need Natural England’s position or for Cumbria County Council to consider**

1. The developers own surveys and modelling have highlighted SAC flushes and alkaline fen within the Ashby Complex SAC that may be affected by the dewatering, although these are already declared by the developer to be in an inferior condition.

   It is not clear whether this poor status is a natural condition, or something that has been caused by the de-watering activity.

   It is unclear from the application documentation if there is any practical means of providing mitigation to these possibly degraded flushes and alkaline fen features, or a way of linking it to some form of monitoring and trigger level. As such, although small, these features are potentially very vulnerable to loss of water. Whether or not this is a site integrity, or SSSI issue will depend on whether Cumbria County Council/Natural England agree with the findings of the report on the flushes.

2. Agreement as to the amount of river flow mitigation that is necessary is a matter for the County Council and Natural England.

   When we know Natural England’s position on the amount of river flow mitigation, we will be in a better position to make comments on whether the amount of water required can be delivered effectively, and if the mitigation reservoirs are big enough.
3. Dalebanks Beck descends steeply away from the quarry. Therefore, the
derogation potential between the augmentation pipeline and the compliance point
at the top of the SAC is probably less risky than the situation with Trainrigg Syke
which runs along the affected stratum at a higher level, at a flatter gradient, and
for much further. As such it is probably more vulnerable to bed-losses over a
greater length, commencing at a time when the water level is higher in the quarry
than when it starts to affect Dalebanks Beck.

As the water level rebound is still not complete from the previous unauthorised
dewatering activity, we still have a limited understanding of just how much water
would be or could be naturally present in this watercourse when there is no
dewatering effect. We have to rely on the developer’s model which has not been
subject to full recovery validation in this area.

4. We may need to discuss whether Cumbria County Council can secure planning
conditions that only allow progression to successive depths upon provision of
evidence that the required mitigations of the previous phase had been fully met
(e.g. confirmation that the mitigation water to Trainrigg Syke and Dalebanks is
reaching the SAC at the appropriate volume).

The April 2014 AMEC ‘Info for Habs Regs Report’ (p56) recommended a
programme of monitoring to assess the effectiveness of the flow mitigation
system, including flow accretion and ecology surveys carried out annually in
appropriate season. If a trigger point is needed for a planning condition then
monitoring will need to be closely linked to the trigger point in the planning
permission.

Section 6.9.2 states that: “providing planning consent is granted, a detailed
monitoring plan would be developed and agreed with CCC and statutory
consultees prior to the commencement of any quarrying operations...”. We would
like clarification as to whether the exact triggers would be set subsequent to
planning permission being granted, or are they needed to be agreed and secured
as part of a planning permission?

Informatives

Responsibility for non-main water bodies

The AMEC report ‘AMEC Habs assessment’ (pg 2 section 1.2) mentions an agreement
between Cumbria County Council, Natural England and the Environment Agency that
“there was agreement that any timing mismatches (relating to permits / licences /
consents) should not, in themselves, require completion of a new HRA throughout the
lifetime of any permitted scheme. Instead, it was agreed that a new HRA should only be
necessary if changes in the project (planned or unplanned) could lead to additional
adverse effects on the designated features of the River Eden SAC. This report is
therefore intended to address HRA requirements for all applicable applications/permits
that fall into the categories noted above.”

As any Flood Defence Consent (and Land drainage consent on page 3 of this report)
associated with this scheme is likely to be on ‘non-main’ river, it will be the County
Council, not the Environment Agency who consents this aspect of the works. We would
recommend that the Flood Risks Management team within Highways and Transport
ensure that there is enough information in the Habitats Assessment that would be
required as part of a Flood Defence Consent.
If you would like to discuss any of the above comments, please feel free to get in contact with me. We ask to be reconsulted again with the further information/clarification that we have sought through this letter. We note that we are likely to recommend that some planning conditions be secured by way of any planning permission. However, we will await the further information and clarification before formalising these.

Yours faithfully

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