Appendix 17.1

DNPA Landscape Officer's response and DNPA Ecologist's response dated 12 October 2016

MEMORANDUM

To : Development Management **From :** B Beasley

FAO : S Belli **Trees and Landscape Officer**

Ref : 0322/16 **Date :** 12 October 2016

Proposed Quarry Extension : Linhay Quarry, Ashburton

This report has been prepared with input from David Stokoe from Amec Foster Wheeler.

1. GENERAL COMMENTS

The applicants have submitted a Landscape and Visual Impact Assessment report in support of their application to extend Linhay Quarry. The purpose of the LVIA is to:

- Identify, evaluate and describe the current landscape character of the site and its surroundings and also any notable individual landscape features within the site.
- To determine the sensitivity of the landscape to the type of development proposed
- To identify potential visual receptors
- To identify and describe any impacts of the development in so far as they affect the landscape and/or views of it and to evaluate the magnitude of change due to these impacts.

1.1 Study area

A 2.5km study area has been defined for the LVIA as described in paragraphs *2.13* and 3.17 of the report. This is considered to be limited in terms of potential landscape and visual effects on the wider landscape, particularly in the context of the Dartmoor National Park, a nationally designated landscape.

It may have been more appropriate to have a 2.5km detailed study area and a wider 12km general study area, which would have considered effects on nationally significant receptors and long distance views. It is noted that the LVIA does go on to discuss and assess some of these more distant receptors but it would have been helpful to make this approach and distinction explicit in *section 2 Methodology* of the LVIA. Furthermore, whilst a 2.5km study area is defined in the text, a review of the figures accompanying the LVIA indicates that this distance has not been carried through to the figure production. Only one figure indicates the 2.5km study area (the viewpoint plan in Appendix 8A.3), all remaining baseline figures cover a variable buffer of considerably less than 2.5km. The ZTVs presented in Appendix 8A.3 are particularly

difficult to interpret given the hillshade background and absence of OS mapping.

1.2 Significance

Table 8 and paragraph 3.30 of the LVIA set out what is termed in the assessment to be a *level of significance* and states:

3.30 The magnitude of effect is combined with the sensitivity of the landscape/receptors and a resultant category of significance of effect is established, ranging from neutral to very large (which can again be positive or negative) in accordance with the Table below.

Table 8. Significance of effect

Landscape/ Receptor sensitivity	Magnitude of Effect: No change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight/ Moderate	Moderate/ large	Large/Very large
Moderate	Neutral	Neutral/ slight	Slight	Moderate	Moderate/ large
Low	Neutral	Neutral/ slight	Neutral/ slight	Slight	Slight/ moderate

However, this table does not provide an indication of the level at which the combined sensitivity and magnitude of change would potentially be significant. In LVIA's forming part of Environmental Statements there is a requirement for a threshold to be determined beyond which effects are considered to be 'significant' in EIA terms. The *LVIA* does not indicate at what level this is and therefore is unable to indicate which effects are 'significant'. This is a major omission of the LVIA.

2. LANDSCAPE CHARACTER

2.1 Baseline Landscape Character

The report outlines the baseline character for the site and surrounding area.

The existing quarry is a feature in the landscape, but surprisingly discreet, the quarry and associated infrastructure is mainly seen from Balland Lane, with a few glimpsed views from the surrounding high ground. The road running along the eastern edge of the quarry is a natural stop to the quarry and mostly the adjacent rural landscape is not viewed in conjunction with the existing quarry. The A38 is a dominant linear feature in the landscape and forms a hard line against the National Park Boundary. The town of Ashburton is located to the west of the quarry and has little relationship with the new quarry site. The visual impact assessment shows the extension as part of the surrounding rural landscape with little influence from the quarry or town.

Reference is made to the rectilinear field system with a north west – south east alignment and the presence of Alston farmhouse and cottage seen to the rear of the site. There is no reference to the type of field system, its significance or the fields' relationship to the farmstead. This field system is mostly complete with few boundaries removed; it differs from the surrounding field system, which exhibits the typical shapes of a farmed strip system, enclosed in the mid to late medieval period. The orientation and shape of the fields has characteristics strongly suggestive of a bronze age reave system. In his book Dartmoor Reaves, Flemming suggests the enclosed field system forms part of the Rippon Tor reave system. The Authority's Archaeologist supports the view that there is significant chronological depth in the extant field system and a strong possibility that its current layout has been influenced by a Bronze Age precursor. In landscape terms this is very special and something that cannot be replaced. However, there is some debate about the age of the enclosure, as Glendinning's archaeological consultants suggest the enclosure is Medieval, and Dartmoor Society suggest the system is 18th Century.

If Flemming is correct the site is a field enclosure system that was formed in the bronze age and is still being used for the purpose for which it was constructed. Whilst the banks will have been repaired/replaced over time the layout could reflect a bronze age field system. The site is not just a group of fields but a historic landscape feature that is unique on Dartmoor.

This is a significant historic landscape and the failure to highlight the uniqueness of the field system and its relationship to the adjacent farmstead is a weakness of the applicants' report.

Twenty seven hedgerows will be removed from the site. If the hedgerows are assessed against the Hedgerows Regulations 1997 criteria, they would be classed as 'important' because they appear on the Ashburton Tithe Map. The Regulations state that there is a general presumption against the removal of 'important' hedgerows. Hedgerows are a significant feature of the site and the wider landscape.

Trees, particularly hedgerow trees, are an integral element in this landscape and its character. The impact of tree removal on the character of the landscape has not been fully considered.

2.2 Baseline Landscape Quality and Sensitivity

The LVIA report states that landscape quality of the character area has high sensitivity, and that the site itself is moderately sensitive to change.

Paragraph 5.72 of the LVIA then goes on to state, '*The proposed extension site is by its nature of a type of character which may be able to partly accommodate change of the type proposed without a significant effect on this character and the landscape resource.' However,* this is not a convincing argument because the site area will be 'fundamentally' not 'partly' changed by the development proposal. The report summary also continues with this argument noting in paragraph 13.14, '*As a result of the above appraisal it is*

*concluded that the landscape may be able to **largely** accommodate change of the type proposed without a significant effect on the character and landscape resource.'* Despite the fact that the level(s) which determine a significant effect is never quantified, it is difficult to rationalise this statement given that the 'significance of effect' on landscape character in a number of instances is assessed as being towards the upper end of the spectrum as 'moderate/large'. It is also not clear how ***'partly'*** evolved into ***'largely'*** and the justification for this. These statements appear to contradict paragraph 3.5 which states "*A landscape that is less sensitive, more robust would be able to accommodate changes of the type proposed whilst essentially retaining the same set of key characteristics. Conversely, a landscape with a very high sensitivity to change would have these key characteristics and elements changed to such an extent that the landscape ceases to be what it once was*". The argument that the site can accommodate change without significant effect is not convincing.

Paragraph 5.74 of the LVIA provides the landscape sensitivity for the landscape within the site boundary and states *"When judged against the criteria set out in Table 4 the proposed extension site is considered to be primarily of **'moderate'** sensitivity to the proposals, The criteria judged against the proposed extension site's moderate sensitivity include;*

- *Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place;*
- *Contains some features of value through use, perception or historic and cultural associations;*
- *Contains some features and elements such as individual trees and a historic field pattern which could not be replaced;*
- *The proposed extension site is influenced by existing detracting features and elements associated with the active quarry located to the south western edge of the proposed extension site and the A38 alongside the southern boundary;*
- *The landscape has a good degree of uniformity, which is of a scale and topographical variation consistent with the surrounding landscape;*
- *The components and characteristic elements of the landscape are well represented over a wide area and are capable of successful replication through implementation of the progressive restoration scheme;*
- *The modification of landform that would arise as a result of bund formation to accommodate limestone extraction would be relatively consistent with adjacent natural landforms and fully integrate the restored site into the landscape context, and;*
- *The landscape of the site and surrounding Study Area is well managed as an agricultural landscape with limited indication of current deterioration or degradation.""*
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It is considered that at least some of these criteria with regard to this site and proposed development are questionable and leads to the conclusion that there is some doubt relating to the ***'moderate'*** sensitivity rating. This is an important consideration because it has implications for the findings and levels of significance for the landscape assessment as a whole. The key issues for

the sensitivity of this site and development proposal are; the level of influence of nearby built development; the existing quarry, the A38 and possibly Ashburton and to what extent this influence detracts from key valued attributes, as well as the significance of the historic field system and its relationship with the setting of listed buildings. It should be noted that it is this '***moderate'*** sensitivity that has been carried through to Table 68 *Significance of Residual Landscape Effects Stages 0 to 6* and not the '***high'*** sensitivity concluded for landscape character within the wider landscape within the study area.

Criteria for defining high sensitivity in the submitted LVIA includes;

- Of high quality with distinctive elements and features making a positive contribution to the character and sense of place. *The land is a virtually intact farmed landscape with little hedgerow loss, and forms the setting for a listed historic building. It links to surrounding landscape, and shows the key characteristics of the local landscape.*
- Likely to be designated. *The land forms part of a National Park which is designated for its natural beauty.*
- Areas of special recognized value through use perception or historic and cultural association. *Possibly a fossilised bronze age field system with medieval droveways, with evidence of historic tin working on the site. The continued use of the land for farming creates an agricultural palimpsest.*
- Likely to contain features and elements that are rare and could not be replaced. *A virtually intact historic field system, which may be a lowland fossilized bronze age field system, forms most of the development site and cannot be replaced.*
- Unlikely to contain, or already influenced by, existing features and elements similar to those associated with the proposed development. *The quarry is an adjacent feature, but there is a strong division in the landscape between the quarry and the development site. This is a situation where the quarry does not have an undue negative influence on the development site. Within the development site there is no perception of the quarry from the site itself. The landscape of which the site forms part is characterised by a strong hedgerow structure with frequent hedgerow trees. It is dominated by pastoral farming, in medium sized irregular fields mostly of medieval origin defined by hedgerows, stone faced hedgebanks and stone walls. The landscape has high scenic value and is an important area of landscape transition between the wild moorland core of the National Park and the developed areas on its periphery. The A38 is a feature in the landscape, but the site is not strongly influenced by this feature.*

The site meets the criteria to be classed as having high sensitivity.

2.3 Landscape Elements

The landscape assessment provides consideration of the direct effects upon landscape elements within the site boundary which are most commonly associated with the phased removal of hedgerows/field patterns, trees and

landform. The sensitivity of these elements has often been assessed as *high* within the LVIA with the magnitude of change (referred to as the magnitude of effect in the LVIA) assessed as *moderate to major* during many of the phases. The resulting level of effect (referred to as the level of significance in the LVIA) is predicted to be *large*. This is the highest level of effect under the methodology set out in Section 3 of the LVIA and in the absence of a significant/not significant threshold, this presumes effects of landscape elements to be significant.

2.4 Potential Landscape Effects

The purpose of this assessment is to assess the effect on the landscape as a resource. The development will have six phases and the report assesses the potential effect on landscape elements during each stage of construction.

The report identifies the impact during each construction phase of the development and the impact of the operational quarry during each phase. There are four construction phases, five operational phases and one restoration phase.

The timing given for these phases is very precise; such precision could be questionable, as construction projects rarely run to exact timescales. The Authority will need to agree what happens if the works are not carried out within the suggested time frames. How much slippage will be allowed and the potential impact have will also have to be taken into consideration.

2.5 Assessment of Impacts on Landscape Character

Construction

Stage 0 Construction

Attenuation ponds within the fields will be created in the early phase of development. The impact is said to be negative, but temporary. The development will create relatively large ponds in part of a pastoral medieval system. The ponds are permanent features and the impact on the character of the local landscape will be permanent.

Stage 1 Construction (Year 2 and 10)

The report suggests the impact of the development during stage 1 is likely to be negative, but temporary due to the short term nature of the construction activity. The works in this phase include partial removal of the existing agricultural landscape including removal of existing hedgerows and part of the droveway. It is considered that the removal of the agricultural features will have a negative and permanent impact on the landscape. Fundamental elements of this landscape will be removed permanently and new elements introduced, such as the proposed bunds, which are not characteristic features found in this landscape.

Stage 2 Construction (Year 13 and 16)

The works carried out in this phase will remove overburden and add material to the bunds. The report suggest the operational works will be carried out during a short time period (4 months) but this does not take into account the continued construction of the bunds during this period.

The potential effect on the character has been recognised as being large and negative with the effects being temporary due to the short term nature of the operations. The change to the character will be permanent. The impact of construction activity may be temporary, but the impact on the character of the landscape is permanent. The LVIA has described the effect as temporary because it will be carried out over a short period of time, but the implications of this activity are permanent. The effects that are temporary during the construction phase are construction activity – vehicle movements, temporary surfacing, fencing, buildings etc. The vegetation removal is a permanent effect.

Stage 3 Construction (Year 31 to 40)
This phase includes further stripping of land cover from existing field plots along with the removal of hedgebanks. The impact on the character of the landscape is regarded as being negative, but these effects are considered to be short term. Removing a key element of a landscape is not short term, it is permanent.

Operation
Stage 1 Operation (Year 2 to 13)
The LVIA states that the operational activities during this phase on landscape elements are likely to be localised, but will have a negative effect which will be direct and permanent.

Stage 2 Operation (Year 14 to 31)
The impact of the quarry on landscape elements during this phase of the development will be direct, negative with these effects considered to be long term.

Stage 3 Operation (Year 31 to 40)
The impact of the quarry on landscape elements during this phase of the development will be large, negative and represent a long term change to the local landscape.

Stage 4 Operation (Year 41 to 46)
The impact of the quarry on landscape elements during this phase of the development will be direct, negative and represent a long term change to the local landscape.

Stage 5 Operation (Year 47 to 60)
The impact of the quarry on landscape elements during this phase of the development will be negative.

It is clear from the report that the impact of the construction phases and the operational phases on the baseline character will be direct, negative and long term (permanent).

Stage 6 Restoration

A vision for the final, non-active, stage of the development is to remove some of the upper benching, allow the quarry side to re-vegetate, allow the void to fill with water to form a lake and provide footpaths for recreational use. The report suggests the restoration phase will give rise to beneficial effects on the landscape once quarrying operations have ceased.

2.6 Residual impacts of the Scheme on Landscape Character

The residual impacts are the effects which remain after mitigation. Residual impact is defined as an assessment of magnitude (scale) of the development and duration of the effect. In terms of impact on the character of the landscape the duration of the effect is permanent. The report breaks down each operational and construction phase and assesses the impact at each phase of development. The impacts range from negligible adverse to major adverse. In terms of landscape impact the assessment should also address the impact of the completed development on the landscape.

Table 13 Magnitude and Nature of Effect describes a Major adverse effect as one that is 'Total loss or large scale damage to existing character or distinctive features and elements, and/or the addition of uncharacteristic features and elements'. When considering the scale of the development at Linhay and the complete loss of a historic field system and its impact on the character of the site will be Major adverse. The impact of the development on the wider landscape and the host Landscape Character Type will be significant up to 2km with its impact reducing with distance with little impact beyond 10km.

2.7 Restoration and its impact on Landscape Character

The residual effect on the landscape during stage 6 is described as moderate to major beneficial. The restoration phase consists of regarding the upper benches, letting the slopes naturally regenerate managing the woodland planting, and allowing the void to fill with water.

The definition of Major beneficial is;
Large scape improvement of character by the restoration of features and elements and/or the removal of uncharacteristic and conspicuous elements, or by the addition of new distinctive features.

Clearly the restoration phase does not restore lost features nor does it remove uncharacteristic features such as bunds. The only 'improvement' is the introduction of a water body, but a water filled quarry is not a feature found in this landscape. Improvement to the surrounding landscape will happen during the operational life of the quarry when hedges are translocated into the adjacent farmland to restore part of the field system, but this improvement will have a neutral effect because the hedges are being removed from an existing historic field system. At best I would describe the restoration phase as Minor beneficial when comparing 'restoring' the quarry when redundant over abandoning the quarry at the end of its working life. The benefits of restoring the finished quarry do not outweigh the Major adverse impact the development will have on the character of the lansdcape.

2.8 Published Landscape Character Assessments

The LVIA has referenced the relevant National Character Area Profiles, Dartmoor National Park Landscape Character Assessment and the Teignbridge District Council Landscape Character assessment. The report highlights key characteristics and valued attributes, and lists the forces for change (threats) for this landscape type. The most relevant Landscape Character assessment is the Dartmoor National Park's A Landscape Character Assessment for Dartmoor National Park 2010.

2.9 Dartmoor National Park Landscape Character Assessment

The most relevant landscape assessment for this site is the National Park Authority's landscape Character assessment 'A Landscape Character Assessment for Dartmoor National Park 2010'. The Landscape Character Assessment covers the whole of the National Park and describes the landscape of each character type, identifies key characteristics and valued attributes of each landscape type and identifies forces for change. When assessing the impacts of development on the character of the National Park it is the most relevant Assessment.

The site lies within Landscape Character Type 3A Upper Farmed and Wooded Slopes

The Key Characteristics are a description of the important elements within this landscape type and are Dartmoor specific. The key characteristics for this landscape type are;

- A rolling, hummocky landscape owing to a complex underlying geology – cut by small tributary streams at the foot of undulating slopes. Some slopes are extremely steep, particularly those rising above the Teign Valley.
- A reminder of the close proximity of the moorland is evident in patches of heathy vegetation and bracken in hedgerows and sheep grazed rough pasture on higher ground.
- A rich hedgerow network with many hedgerow trees links to bands and patches of deciduous woodland hugging valley slopes to create a well treed character.
- The land use is dominated by pastoral farming in medium sized irregular fields of medieval origin with isolated patches of larger, more recent arable fields in places (particularly around settlements and further away from the moorland core).
- Past mining activity from the 16th to the 20th centuries is evident along valleys through remnant mining structures and industrial remnants such as relic mine shafts.
- A dispersed settlement pattern is characterised by individual farmsteads of local stone, slate, thatch and colourwash nestled into the folded landform or screened by woodland. Occasional glimpses of colour washed farmsteads can be seen against lush green pastures, creating focal points within framed views.

- Some larger villages are positioned on higher slopes, characterised by nucleated historic cores surrounded by more recent 20th century development.
- Modern ribbon development lines rural lanes between these larger settlements resulting in a 'lived in' feel (e.g. between Ilsington and Haytor Vale). Settlements on the edge of the National Park tend to include more areas of modern development with lower levels of tranquillity.
- Narrow winding lanes often traverse at right angles to the hill slopes, with some lengths extremely steep where they run downhill.
- This is an intimate landscape with occasional framed views to the wider landscape where gaps in hedgerows permit. The well-treed character results in an enclosed and unified landscape with constantly changing colours and textures.

Valued attributes are the fundamental elements within the landscape and if any one attribute ceased to exist it would have a major impact on the landscape concerned. The Valued Attributes for this landscape type are;

- Large areas of woodland, included valued ancient semi-natural blocks and copses.
- The landscape's function as a transition between developed areas and the wild moorland core of the National Park.
- Productive farmland with small fields and winding lanes enclosed by thick hedgerows.
- The landscape's human scale, evoking a sense of calm and history.
- Strong stone vernacular reflected in farmsteads, stone-faced banks, walls and barns.

Forces for change (threats) have been identified for each landscape type

One of the identified future forces for change affecting landscape character In this landscape character type is;

- Demand for new quarries and expansion of existing sites to supply building stone/aggregates for new development – e.g. Linhay Hill limestone quarry near Ashburton.

2.10 Devon Landscape Character Assessment

Devon's landscape character assessment describes the variations in character between different areas and types of landscape in the county. No reference has been made to the Devon Landscape Character Assessment.

The site lies within Devon Character Area – Ashburton and Dartmoor Foothills. This area is located at the eastern edge of Dartmoor and includes the town of Ashburton. The distinctive characteristics within this landscape area includes;

- 'A strong hedgerow structure with frequent hedgerow trees enhancing the area's wooded character.

- Dominated by pastoral farming, in medium sized irregular fields of medieval origin defined by hedgerows, stone faced hedgebanks and stone walls.'

The evaluation of the special qualities and features of this landscape area includes;

- High scenic quality – largely within Dartmoor National park but contrasting with the unenclosed moorland above.
- An important area of landscape transition between the wild moorland core of the National Park and the developed areas on its periphery.

One of the identified forces for change (threats) is the 'ongoing quarrying activity at Ashburton that has visual impacts and reduces tranquillity'.

The strategy for this landscape area is to 'protect the scenic quality of this landscape within Dartmoor National Park, strengthening its special qualities and features. To achieve this aim the assessment recommends 'the field patterns, hedgebanks and vernacular buildings within the landscape are retained and enhanced'

The guidelines to protect this landscape include;

- Protect and maintain the **strong irregular field patterns** of the landscape, repairing lost and gappy hedgebanks whilst respecting local variations in construction and plant species
- Protect, appropriately manage and interpret the landscapes **archaeological heritage**.

The development clearly does not protect the distinctive character of this landscape character area.

2.11 Significance of landscape effects on Landscape Character

The conclusions reached in the LVIA suggest that overall the development will have no major detrimental harm to the valued attributes of the wider Dartmoor National Park.

The definition of major detrimental harm is not fully explained in the LVIA methodology and the issue of the development being on the edge of the National Park does not necessarily reduce the likelihood of 'harm' to the valued attributes of the Park.

The LVIA does not fully explore the effects on these attributes with the LVIA repeatedly stating that the development will have no major detrimental impact upon valued attributes against each phase of the development.

The valued attributes for this landscape type 3A Upper Farmed and Wooded Slops include;

- The landscape's function as a transition between developed areas and the wild moorland core of the National Park.
- Productive farmland with small fields and winding lanes enclosed by thick hedgerows.

- The landscape's human scale, evoking a sense of calm and history.

It is considered that the introduction of the development would represent a considerable erosion of these valued attributes. The site area is part of a landscape which is a transition between developed areas and the wild moorland core of the National Park and the development would represent a considerable erosion of this valued attribute. The fields and hedges are a key feature of the site and the wider landscape and the loss of these elements on the scale proposed will erode this valued attribute. The scale of the development will also impact on the areas human scale and will have a significant impact on the calm and particularly the history of the site.

A quarry extension of the size that is proposed will impact on these three valued attributes. In my opinion the quarry extension will cause major permanent harm to the character of this landscape and the effect on the landscape will be Major adverse and permanent.

Table 37 sets out the Significance of Landscape Effects during each stage of development. This table is misleading and it doesn't help to clarify the impact of the development. It highlights some parts of the site be moderately significant whilst other parts are highly significant. The construction phase is considered to be temporary whilst the operation is permanent. The construction phase removes elements of the landscape which will have a permanent impact.

It is stated that the final restoration phase suggests the quarry extension will have Moderate/Large beneficial significance. The report clearly states that the development will have a negative and permanent impact on the character of the local landscape and to suggest that a partially restored quarry site has benefits that outweigh the loss of important elements of the local landscape is misleading. A restored quarry may have benefits over an unrestored quarry, but the benefits of the restored quarry do not outweigh the harm caused to this highly sensitive protected landscape.

I do not believe the landscape assessment gives enough weight to National Park designation. The LVIA Guidelines state that nationally designated landscapes such as National Parks will be accorded the highest value in the assessment. If the area affected is on the margin of such a designated area, thought must be given to the extent to which it demonstrates the characteristics and qualities that led to the designation of the area. The site clearly shows the key characteristics and valued attributes of the surrounding landscape within the National Park, and the fact that it is on the margin of the Park should not reduce its importance or value.

3. VISUAL AMENITY

An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. How people are affected by the changes in the content and character of their views.

3.1 Viewpoint Assessment

Following a high level review by Amec Foster Wheeler the following conclusions have been reached:

- There is some replication of viewpoints (i.e. viewpoints 28 and 29) which may add unnecessary length to the assessment;

- Cross referencing between viewpoint location numbers and receptors included in the visual assessment would be useful;

- It would be helpful to have the photographic viewpoints illustrated in Plans A.3.1 and A.3.2 overlain on the ZTV. The ZTVs are difficult to interpret and navigate in the absence of OS base mapping;

- Sensitivity of visual receptors is generally considered appropriate with residential receptors consistently assessed as being of high sensitivity to visual change. However, the sensitivity of recreational receptors using open access land within the DNP is assessed as medium. Under GLVIA3 this should be high as their primary purpose is visiting and appreciating a nationally designated landscape;

- In some instances the introduction of screening mounds or 'bunds' appears to have led to an assessment that the view would not be adversely affected or that adverse effects would be minimised which is not necessarily the case. These can often be large-scale features in their own right, foreshortening existing views.

3.2 Visual Impact Assessment

A detailed visual impact assessment has been submitted. The assessment follows guidelines set out in The Landscape Institute Guide for Landscape and Visual Impact Assessment. The submitted photographs have been taken with a 50mm lens at 1.65m, photographs have been merged to create panoramic views. The photos are represented on paper in a linear format. Whilst the photographs give a good indication of the character of the landscape and views from the selected receptor points, the way they are presented does not give a 'true' image in terms of what the viewer would see from those receptor points.

The recommended standards and methodology for the production of visualisations in relation to LVIA are outlined in the following publications and documents:

- Guidelines for Landscape and Visual Impact Assessment, Third edition (GLVIA3) (Landscape Institute and IEMA, 2013);

- Landscape Institute Advice Note 01/011, Photography and photomontage in landscape and visual impact assessment (LI Advice Note 01/011) (Landscape Institute, 2011); and

- Visual Representation of Wind Farms Version 2.1(VRWF) (Scottish Natural Heritage [SNH], December 2014).

The SNH guidance has been devised specifically with regard to the visual representation of wind farm development but it generally regarded as the most comprehensive methodology available to the landscape profession and it is considered that much of the guidance can be applied to other types of development. *LI Advice Note 01/011* remains current and recommends that this guidance should be followed unless alternative methodologies have been agreed with the relevant determining authorities.

It is observed that the photomontages in the LVIA do not fully comply with the guidance detailed in *LI Advice Note 01/011*. In accordance with the advice note, it is recommended that the following data is recorded:

- *Camera, lens focal length and horizontal field of view;*
- *Date, time, weather, lighting conditions and field of view; and*
- *The viewpoints height above ground level and OS grid coordinates* (Section 4.3).

In the LVIA photomontages it is noted that the focal length of the camera and approximate height above ground level are specified but other details are lacking or incomplete.

Both the *LI Advice Note 01/011* and *SNH VRWF* recognises that viewpoint photography and photomontages are a 2D representation which cannot fully replicate the visual situation actually experienced in the field. *LI Advice Note 01/11* introduces the concept of viewing distances and states (in Section 5.2) that "*The viewing distance for hand-held photographs and photomontages should be between 300mm and 500mm*". Whilst the concept of viewing distance is no longer applicable in the more recent SNH guidance, paragraph 106 recommends the photomontages are simply viewed at a comfortable arm's length and that this instruction should be included on all visualisations produced. Despite being requested as part of the *Scoping Opinion of the Mineral Planning Authority, Dartmoor National Park Authority* (January 2016) neither the *LVIA* document itself (in particular paragraphs 2.19 to 2.22 which deal with viewpoint photography) nor the photomontages, baseline photography or selected extracts of baseline photography contained within Appendix A.4.2 make any reference to how the images should be viewed and their presentation suggests they are not compliant with *LI Advice Note 01/11.*

The *LVIA* submission does not include material appropriate to be used in the field at viewpoint locations and it is considered, therefore, that the ability of the visual material submitted does not provide the level of information required to fully appreciate the level of visual change the development will introduce and cannot be relied upon to determine or verify the predicted magnitudes of visual change.

If Committee Members or the general public refer to the submitted visualizations they will not be able to fully understand or appreciate the full impact of the development. The Authority should request single hand held

photographs that can be viewed at arms-length are submitted to supplement the existing photomontages.

3.3 Assessment of Baseline Visual Amenity Value

The report has assessed the visual amenity of the wider landscape being a range between exceptional - Buckland Beacon, to poor – Ashburton Business Park. The site itself has been classed as having good visual amenity value.

Exceptional is defined as;

Areas of outstanding scenic value, with distinctive features that combine to give experience of unity, richness and harmony and create a strong sense of place. These are landscapes which may be considered to be of particular importance to conserve on an international or national scale.

Good is defined as;

Areas of pleasing scenic value with a strong sense of place, but occasional detracting features. These are landscapes with some distinctive features which may be considered worthy of conservation on a regional or national scale, however sensitively planned change is unlikely to be detrimental.

In my opinion the scenic value falls between the two classifications, the submitted photographs show the site has outstanding scenic value with the enclosed pastoral landscape combining with the surrounding enclosed landscape to give a sense of unity, richness and harmony creating a very strong sense of place. The site forms part of a landscape which is nationally designated.

The visual impact assessment is a detailed analysis looking at the visual impact over the 6 phases of the quarry working. It has identified most of the significant receptor points.

The residual visual effects on Caton residents mentions having views of the bund construction, but no mention of the permanency of the bund and the visual impact this will have even when planted with trees. The bund abuts one of the gardens and the bund itself may be considered to be visually intrusive to Caton residents.

3.4 Significance of Residual Landscape and Visual Effects

The visual impact does not address the change to the scenic value. Whilst the site may be screened by bunds and new planting these features are somewhat alien to the existing landscape. Viewing the quarry extension and associated features is a different experience from viewing an enclosed pastoral landscape that combines with the surrounding enclosed landscape giving a sense of unity, richness and harmony creating a very strong sense of place. The report concentrates on the visual impact of the quarry, but it does not address the loss of views of the existing landscape and the change in perception of the landscape.

The assessment concludes with the following statement,
'By Stage 6 (Restoration), it was judged that due to the cessation of quarrying activities and the creation of extensive areas of habitat and new landscape assets such as public access and amenity recreation areas the significance of effects on visual receptors described as being adversely affected during the preceding Stages were overall considered to experience; ***Large beneficial significance****.'*

The nature of the assessment methodology used in the *LVIA* is that this level of effect relates to the phase 6 baseline rather than the baseline scenario prior to the commencement of development. Whilst it is useful to understand how the visual effects will change over the course of the development phases it is important to understand how level of effects for the completed scheme, the restored quarry, in relation to the baseline landscape. In this respect the conclusion that these would give rise to beneficial visual effects is questionable.

35 Receptor points have been analysed and the impacts range from no change to Moderate/Major adverse - permanent impact. Clearly the development will have an adverse visual impact, the significance of this impact varies for each receptor, but when assessing the impact the Authority should take into account the most significant impacts when determining the application.

3.5 Mitigation of Visual Effects
The applicants intend to mitigate the impact of the development by creating bunds during several phases of the development and planting these bunds with mixed native woodland species. New native woodland will also be planted along the northern boundary of the quarry. The new road running along the northern side of the quarry will be planted either side with mixed native hedgerows to mimic a typical lane found in the area. Hedges removed from the site are to be translocated to other locations initially within the site and at a later phase into adjacent farmland to replace lost filed boundaries. A new hedgerow and band of trees will be planted along the northern side of Balland Lane.

On completion of the operational works a final restoration phase is proposed. The upper benches will be reformed to give a softer profile and the existing spoil tip at the north western end of the site will be landscaped. The void will be allowed to fill with water creating a deep lake. New paths will be created though the woodland planting and around the quarry site. The proposed restoration will take place in year 65. This is such a long time in the future that the plans can only be schematic.

In principle the proposed mitigation and final restoration are acceptable and will ultimately soften the visual impact on the quarry, and the woodland planting will reflect the small native woodlands found in this landscape.

4. POLICY

The development will clearly have an adverse impact on the character of this part of the National Park and will have an adverse visual impact. Various policies set out the framework for guiding planning decisions.

4.1 National Planning Policy Framework

The NPPF contains guidance on landscape and visual impacts within National Parks. Para 115 states that *' great weight should be given to conserving landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads.*

4.2 Dartmoor National Park Core Strategy Development Plan Document

Policy relating to landscape is set out in the Authority's Core Strategy and the Development Management and Delivery Development Plan Document.

Policy COR1

In order to ensure that development within the Dartmoor National Park is undertaken in a sustainable manner, the following considerations should be taken into account:

a) the need to make efficient use of land and infrastructure;
b) the conservation of scarce resources and the reduction of waste;
c) the promotion of the health, safety, economic and social well-being and access to services opportunities of the local population;
d) support for the socio-economic vitality of the National Park;
e) the conservation of the quality and quantity of natural resources including water, air, soils, geodiversity and biodiversity;
f) allowance for the natural drainage of surface water;
g) the provision of high quality design and construction;
h) respect for and enhancement of the character, quality and tranquillity of local landscapes and the wider countryside;
i) the need to sustain the local distinctiveness, character, townscape, and the setting of settlements;
j) the need to conserve or enhance important historic and cultural features;
k) the provision of essential services to the public;
l) the accessibility by the public via public transport, cycle or foot to destinations in daily life;
m) the avoidance of new development and a reduction in vulnerability of redevelopment carried out within medium to high risk flood zones.

The development does not accord with policy COR1 because it does not ensure respect for and enhancement of the character, quality and tranquillity of the local landscape and the wider countryside.

4.3 Policy COR3
Development will conserve and enhance the characteristic landscapes and features that contribute to Dartmoor's special environmental qualities and in making an assessment of development particular regard will be had to:

_ underlying geology and watercourses, river corridors and wetlands;
_ moor and heath;
_ woodlands, trees and orchards;
_ wildlife habitats;
_ field boundaries;
_ settlements, roads and lanes;
_ historic and archaeological landscapes, features and artefacts; and
_ vernacular and other historic buildings and traditional man-made features.

The development does not accord with COR3 because it does not conserve and enhance the characteristic landscapes and features that contribute to Dartmoor's special environmental, nor does it conserve or enhance the historic field system.

4.4 Dartmoor National Park Development Management and Delivery Development Plan Document
The DMD provides the more detailed policies that support the strategic policies in the Core Strategy.

DMD 1b
Delivering National Park Purposes and protecting Dartmoor National Parks' special qualities

Within Dartmoor National Park, the conservation and enhancement of the natural beauty, wildlife and cultural heritage will be given priority over other considerations in the determination of development proposals. Development will only be provided for where it would:

a) conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; or
b) promote the understanding and enjoyment of the special qualities of the National Park; or
c) foster the social or economic wellbeing of the communities in the National Park provided that such development is compatible with the pursuit of National Park purposes.
In all cases, development should not detract from, and where appropriate enhance, the special qualities of the National Park.

The proposed development does not accord with this policy because it does not conserve or enhance the natural beauty or cultural heritage of the National Park. In National Parks the conservation and enhancement of the natural beauty takes precedence, and economic viability or employment opportunity should carry lesser weight than the significant impact the development will have on the landscape (The Sandford Principle).

DMD5
Protecting the character of Dartmoor's landscape Development proposals should conserve and/or enhance the character and special qualities of the Dartmoor landscape by:

- *respecting the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment; ensuring that location, site layout, scale and design conserves and/or*
- *enhances what is special or locally distinctive about landscape character;*
- *retaining, integrating or enhancing distinctive local natural, semi-natural or cultural features;*
- *avoiding unsympathetic development that will harm the wider landscape or introduce or increase light pollution;*
- *respecting the tranquillity and sense of remoteness of Dartmoor.*

The development does not accord with DMD5 because it does not protect the character of Dartmoor's landscape. Development proposals should conserve and/or enhance the character and special qualities of the Dartmoor landscape. A 35 hectare development that destroys all of the elements within the development site cannot conserve or enhance those features within the site.

Development should respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment. The scale and impact the development means it does not respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment; specifically;

- The landscape's function as a transition between developed areas and the wild moorland core of the National Park.
- Productive farmland with small fields and winding lanes enclosed by thick hedgerows.
- The landscape's human scale, evoking a sense of calm and history.

The proposed quarry development does not enhance what is special or locally distinctive about this landscape. The development will destroy a virtually intact historic field system that may be a part of a fossilised bronze age reeve system.

The development does not retain, integrate or enhance the distinctive local farmed landscape with associated fields and hedgerows. The development will destroy a large tract of pastoral landscape which will have an adverse impact on the sense of unity, richness and harmony and the very strong sense of place.

5. OTHER MATTERS

Some information appears to be missing or I have missed the relevant documents.

5.1 Balland Lane Road Widening

I am having difficulty understanding exactly what is happening along Balland Lane. The widening scheme indicates the carriage way will be widened to make an additional lane. The plans I have seen do not make clear what is happening along the road. The road widening will require the removal of a hedgerow growing alongside the road. However, the submitted plans seem to suggest the hedgerow is mostly retained. The hedgerow is in fair condition and if assessed against the criteria set out in the Hedgerows Regulation would be classed as 'important' because it appears on the Ashburton tithe map. There is a general presumption against the removal of 'important hedgerows', but in this instance considering the condition of the hedge and the safety benefits in widening the road the loss of the hedge would be acceptable on condition that a replacement mixed native hedge is planted along the quarry boundary. The quarry is fenced along Balland Lane with 2m metal fencing, but there is no indication whether this fence will be retained. If it is to be removed what will it be replaced with? A drawing showing the finished boundary treatment would be helpful.

View of Balland Lane

5.2 Hedge Translocation
I cannot find a method statement for translocating hedges from the quarry to alternative sites. Glendinning has successfully translocated hedges on a number of occasions and I'm confident that they can do so again. However, hedges will be translocated at several stages over the next 50 years and there is no guarantee that the quarry will be under the same ownership in future years. Hedge translocation is an important part of the mitigation and we must be assured that the hedges can be moved successfully. A method statement will help future owners or managers to follow good practice that has evolved from the previous hedge translocation at Linhay Quarry.

5.3 Tree and Woodland Planting
I am having difficulty in locating details of the woodland or group tree planting. This information should be provided so that we can assess the species mix, pre planting treatment, protection and post planting maintenance. The details are needed so that we can be reassured the planting is following good practice and will establish in a reasonable time frame. The visual mitigation will be achieved to a certain extent by the tree and woodland planting. Time scales are given for the different phases of development and we should have a clear understanding of the likelihood of successful tree and woodland establishment so we are confident the mitigation can be achieved in time scales suggested.

5.4 Arboricultural Information
A detailed arboricultural report has been submitted in accordance with BS 5837.

Numerous trees across the site will be lost either because they are within the quarry or because of construction of access road, widening Balland Lane, construction of tips and excavation of attenuation ponds. The loss of trees will have some impact on the local landscape, but there is opportunity to replace many of the trees. The trees will mostly be lost during the initial stages of the development.

One group of trees (G20) is protected by a Tree Preservation Order. The trees are growing around a pond where water attenuation works are to be carried out. The water level will change which may have an impact on the protected trees, but it is not clear how many trees will be affected by the development. The arboricultural report suggests that specific details of the trees to be removed and actions required to protect the retained trees will be a specific component of the Arboricultural Method Statement; this will be subject to prior approval by DNPA. I'm not sure why the impact on the protected trees has not been fully assessed as part of the application. The impact of the development on the protected trees should have been clearly assessed and stated. The loss of protected trees may be acceptable and may be compensated by the additional woodland planting, but we should have an indication of the number of trees that will be lost to help us understand the impact of the development on this protected copse.

6. CONCLUSION

A detailed LVIA has been submitted in support of the application. The assessment mostly follows good practice as set out in the Landscape Institute's Guidelines for Landscape and Visual Assessment. However, some elements of the assessment do not follow the recommended guidance; defining the study area, identifying a threshold for significance and not including single photo imaging in support of the photo montages.

The assessment of landscape character underplays the impact of the development and fails to recognise the importance of features within the site and the wider landscape. Of concern is the failure to recognize and understand the importance of the historic field system that forms most of development site and which will be mostly destroyed.

The report suggests the landscape has moderate sensitivity to change, whereas I consider the landscape to meet the criteria to be classed as having a high sensitivity to change. The development will have a significant impact on the landscape elements within the site. The residual impact of the development will be permanent and major adverse.

The LVIA suggests on completion of the final restoration phase of the development will be moderate to major beneficial. I consider this to be misleading because it does not consider the impact of the development on the baseline landscape, but compares the restoration phase with the final operational phase of the quarry. I consider the restoration phase of the quarry to be, at best, as Minor beneficial when comparing 'restoring' the quarry when redundant over abandoning the quarry at the end of its working life. The benefits of restoring the finished quarry do not outweigh the Major adverse impact the development will have on the character of the landscape.

The landscape assessment does not give enough weight to National Park designation. The LVIA Guidelines state that nationally designated landscapes such as National Parks will be accorded the highest value in the assessment. If the area affected is on the margin of such a designated area, thought must be given to the extent to which it demonstrates the characteristics and qualities that led to the designation of the area. The site clearly shows the key characteristics and valued attributes of the surrounding landscape within the National Park, and the fact that it is on the margin of the Park should not reduce its importance or value.

The assessment does not fully explore the impact of the development on the key characteristics of the landscape and particularly the valued attributes of Landscape Character type 3A Upper Farmed and Wooded as set out in the Landscape Character Assessment for Dartmoor National Park. The assessment does not refer to Devon County Council's Landscape Character assessment.

The visual impact assessment does not address the change to the scenic value. The proposed mitigation includes bunds planted with trees and

woodland and the report does not assess the visual impact of these elements in the landscape and on receptors.

35 Receptor points have been analysed and the impacts range from no change to Moderate/Major adverse - permanent impact. The assessment clearly states the development will have an adverse visual impact, although the significance of this impact varies for each receptor.

The report suggests that by stage 6 (Restoration), that due to the cessation of quarrying activities and the creation of extensive areas of habitat and new landscape assets such as public access and amenity recreation areas the significance of effects on visual receptors described as being adversely affected during the preceding Stages were overall considered to experience; Large beneficial significance.' In this respect the conclusion that these operations will give rise to beneficial visual effects is questionable and in my view the development will have an adverse visual impact.

The development does not accord with policy COR1 because it does not ensure respect for and enhancement of the character, quality and tranquillity of the local landscape and the wider countryside.

The development does not accord with COR3 because it does not conserve and enhance the characteristic landscapes and features that contribute to Dartmoor's special environmental, nor does it conserve or enhance the historic field system.

The development does not accord with DMD5 because it does not protect the character of Dartmoor's landscape. Development proposals should conserve and/or enhance the character and special qualities of the Dartmoor landscape. The policy is very clear that development should **conserve and/or enhance** the character of Dartmoor's landscape, a 35 hectare development that destroys all of the landscape elements within the development site does not conserve or enhance those features within the site. The development will have a detrimental impact on the wider landscape.

Development should respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment. The scale and impact the development means it does not respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment; specifically;

- The landscape's function as a transition between developed areas and the wild moorland core of the National Park.
- Productive farmland with small fields and winding lanes enclosed by thick hedgerows.
- The landscape's human scale, evoking a sense of calm and history.

The proposed quarry development does not enhance what is special or locally distinctive about this landscape. The development will destroy a

virtually intact historic field system that may be a part of a fossilised bronze age reave system.

The development does not retain, integrate or enhance the distinctive local farmed landscape with associated fields and hedgerows. The development removes a large tract of pastoral landscape which will have an adverse impact on the sense of unity, richness and harmony and the very strong sense of place.

7. RECOMMENDATION

The application should be refused because it will have a permanent major adverse impact on the character of this part of the National Park. The development will also introduce permanent adverse visual impacts which will affect a range of receptors including local residents, walkers, cyclists and visitors to the National Park.

The development does not accord with policy COR1 because it does not ensure respect for and enhancement of the character, quality and tranquillity of the local landscape and the wider countryside.

The development does not accord with COR3 because it does not conserve and enhance the characteristic landscapes and features that contribute to Dartmoor's special environmental, nor does it conserve or enhance the historic field system.

The development does not accord with DMD5 because it does not protect the character of Dartmoor's landscape. Development proposals should conserve and/or enhance the character and special qualities of the Dartmoor landscape. A 35 hectare development that destroys all of the elements within the development site does not conserve or enhance those features within the site.

Development should respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment. The scale and impact the development means it does not respect the valued attributes of landscape character types identified in the Dartmoor National Park Landscape Character Assessment; specifically;

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The development does not retain, integrate or enhance the distinctive local farmed landscape with associated fields and hedgerows. The development will destroy a large tract of pastoral landscape which will have an adverse impact on the sense of unity, richness and harmony and the very strong sense of place.

Brian Beasley
DNPA Trees and Landscape Officer
12 October 2016

Consultation response from DNPA Ecologist on application 0322/16 Linhay Hill Quarry, Ashburton – 12 October 2016

Summary:
Overall, my view is that generally, the ecological surveys were undertaken to a high standard and follow best practice guidelines, as set out in BS42020, BCT Bat Survey Guidelines, and other protected species guidelines. The data interpretation, reporting, valuation and impact assessment similarly generally follow best practice guidance as set out by CIEEM, and are generally carried out to a high standard, though I have some comments to make about the habitat assessments, as well as some of the specialist species surveys. Recommendations for further survey effort are made in the document.

The application site consists in the main of organically managed pasture on limestone soils, with a comprehensive network of ancient and species-rich hedgerows. Numerous farm buildings are present immediately adjacent to the application site. Four fields are intensively managed turf farm; there is an Unconfirmed Wildlife Site immediately adjacent to the north of the site and another immediately adjacent to the southern side of the A38. The Waye Replacement Route runs in the main alongside an existing right of way, the majority of which is wide enough as a single-track road. The application site lies in close proximity to the Buckfastleigh Caves SSSI and Haytor and Smallacombe Mines SSSI, which are both constituent parts of the South Hams SAC. Part of the site is within the South Hams SAC consultation zone. Two watercourses are present on site, namely the Balland Stream and Kestor Brook; the Balland Stream flows into the Ashburn, which holds salmon and otter, which are designation features of the Dartmoor SAC.

The proposal is to extend existing limestone quarry to the north-east, running parallel to the A38. Quarry extension is over an area of 32 hectares, with 21 hectares for extraction and 11 hectares for overburden tipping. The extension will result in loss of Alston Lane, so a replacement route is proposed to run alongside an existing footpath between Balland and Alston Lane; there will be a new access track to Alston Farm, and there is also a proposal to improve the Caton junction with an additional slip road, though this has yet to come forward as a separate planning application. Quarry depth is to go down to 0m AOD, ie around 130 metres depth from surrounding land features. Drainage works and dewatering works are required for the duration of the quarrying process (60 years).

Habitat creation and enhancement measures are proposed to take place during quarrying operations. These include hedgerow translocations, hedgerow creation, broad-leaved woodland creation and management, species-rich grassland creation and enhancement. After quarrying ceases, the void is to be filled with water to become a lake, with currently six types of wildlife habitats created along the quarry edge, as well as a continuous strip of marginal vegetation around the quarry edge.

I make my professional judgement based against the statutory National Park Purposes, policy DMD14 in the DNPA Development Management and Delivery Development Plan Document: Development Proposals will conserve, enhance and/or restore biodiversity and geodiversity within Dartmoor National Park. I also take into account the guidance for Greater Horseshoe Bats as set out by Natural England in 2010 ‘South Hams SAC Greater Horseshoe Bat Consultation Zone Guidance’, as part of the application site falls within the

consultation zone. Finally, I take account of our responsibilities under the Habitats Directive and the Wildlife and Countryside Act on protected species, and the duties of planning authorities under the NERC Act 2006. I am not a specialist in geological or hydrological matters, and therefore require guidance from such a specialist to inform my assessment on any ecological impacts resulting from changes to hydrology and geology.

At present, there are some serious uncertainties surrounding the impact this application might have on the hydrology of the area, and any associated ecological impact. These have been picked up by the Environment Agency, and recommendations for survey and monitoring have been made.

There are also shortcomings on the planning mechanisms through which the proposed mitigation and restoration works will be implemented (notably funding and governance over the 60+ application period). This matter has been raised with the applicants, and the appropriate mechanisms are being drawn up.

Finally, whilst the mitigation and restoration proposals are quite comprehensive, there are further, fairly straightforward, measures that could be taken to further improve the mitigation and restoration plan, which would provide further resilience to any failures or delays in establishment of ecologically valuable habitat. These have been raised with the applicant and their ecological consultants, who are looking into these suggestions in more detail.

HRA Screening was undertaken for the South Hams SAC and the Dartmoor SAC, to assess whether the proposals would have an impact upon the integrity of these sites. Screening for the South Dartmoor Woods SAC could be screened out at an early stage. Detailed screening showed that, following advice by the EA and the applicant's hydrologist, impacts on the Dartmoor SAC should be able to be screened out once pollution prevention mechanisms have been secured. The mitigation and habitat creation and restoration proposals made by the applicant in relation to bats, and greater horseshoe bats in particular, should be sufficient to ensure there is no likely significant effect upon the South Hams SAC; however, whilst there are still uncertainties around the mitigation and restoration delivery mechanisms, as well as new proposals around Caton Junction, impacts on the South Hams SAC have as yet not been screened out.

If all the concerns listed above regarding hydrology, governance and funding, as well as additional ecological measures can be addressed and satisfied, the application would, as set out by the applicant's ecologists, result in an overall net gain for biodiversity as measured through Defra's biodiversity metric. However, there is a consideration to be made inasmuch as the application site at present is of county value for a number of ecological receptors and can therefore be considered a valuable ecological asset as it stands at the moment. Making reference to NPPF 2012, paragraphs 115 and 116, it is stated that 'Great weight should be given to conserving landscape and scenic beauty in National Parks […], which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks. Planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest.'

Detailed response:

I have received and read the following documents:

- Proposed extension to Linhay Hill Quarry Environmental Statement (Part 1)
- Chapter 10 of the ES – Ecology
- Appendix 10.1a Extension Area - Extended Phase 1 Habitat Report
- Appendix 10.1b Extension Area - Badger Survey Report
- Appendix 10.1c Extension Area – Bat Survey Report
- Appendix 10.1d Extension Area – Breeding Bird Survey Report
- Appendix 10.1e Extension Area – Dormouse Survey Report
- Appendix 10.1f Extension Area – Great Crested Newt Survey Report
- Appendix 10.1g Extension Area – Reptile Survey Report
- Appendix 10.1h Extension Area – Invertebrate Survey Report
- Appendix 10.1i Waye Lane Replacement Route – Extended Phase 1 Habitat Report
- Appendix 10.1j Waye Lane Replacement Route – Bats Survey Report
- Appendix 10.1k Waye Lane – Dormouse Survey Report
- Appendix 10.2 Ecological Consultation Responses
- Appendix 10.3 Ecological Mitigation & Enhancement Strategy (EMES) Stages 0-5
- Appendix 10.4 ES Ecology Chapter References
- Outline Operational Land Management Strategy
- Linhay Hill Quarry – Proposed Extension Outline Restoration Strategy
- Landscape Mitigation and Restoration Strategy Plan Stages 0-6
- Information to support the Habitats Regulations Assessment

There were no badger, reptile, invertebrate, breeding bird or great crested newt surveys undertaken in the Waye Lane replacement route area, as the need for them had been scoped out by the ecological consultants.

I met with the applicant and ecological consultants in August 2015, with a general site visit. I met the consultants again in April 2016 and September 2016. I also went on an independent site visit on 19 July 2016, having read through the submitted information (see separate file note on this visit).

I provided the two bat reports to our retained Greater Horseshoe Bat (GHS) consultants for a view on the quality of the surveys, the data interpretation, reporting, valuation, impact assessment and mitigation/enhancement proposals. The query was primarily surrounding Greater Horseshoe Bats, given the proximity of two roosts to the application site that form part of the South Hams SAC (Buckfastleigh and Haytor and Smallacombe Mines). The consultants also provided a view on the adequacy/quality of the above points for all other bat species. These reports had been submitted to us in October 2015 and we received the feedback from our GHS consultants in January 2016.

Comments on survey effort and habitat assessments:
Overall, my view is that generally, the surveys were undertaken to a high standard and follow best practice guidelines, as set out in BS42020, BCT Bat Survey Guidelines, and other protected species guidelines. The data interpretation, reporting, valuation and impact

assessment similarly follow best practice guidance as set out by CIEEM, and are carried out to a high standard.

The main ecological interest of the site lies with the hedgerows – the intrinsic value of the hedgerows themselves as well as the fauna they support – and the farm buildings, which support numerous bat roosts. None of the farm buildings themselves will be removed or altered by the proposal, though one needs to consider the change in the habitat context within which they sit. The consultants do state that the hedgerows are ancient and species-rich, and assess them of being 'district' value. Whilst Devon is noted for its hedgerows, I would say that this network of ancient and species-rich hedgerows should in fact be assessed to be of county-value, as this network is exceedingly species-rich, and a highly intact ancient boundary system.

The consultants value the site as county-value for its bat interest, and I would concur with that assessment, as I do for the other terrestrial fauna surveys that were undertaken.

Whilst the majority of the fields have been in organic stewardship, they nonetheless appear to be of lower interest, and I broadly concur with the assessments made by the consultants, though see my notes below.

It appears there is a lot of uncertainty on what any impacts on groundwater flows and general hydrology might be, and the Environment Agency has requested, prior to determination, a survey of subterranean habitats and species on the groundwater catchment of the Kester Brook. The EA has also asked for three years of monitoring, post determination, on the all water receptors which are potentially at risk.

Comments on specialist reports:
10.1a Extension Area Extended Phase 1 Habitat Survey and Appendix 10.1i Waye Lane Extended Phase 1 Habitat Survey Report: One criticism I would like to raise is that whilst the survey times follow best practice for standard Phase 1 reports, both the initial survey as well as the verification survey were carried out at suboptimal times of year for any botanical assessment. This means that it will have been difficult/impossible to survey adequately for plants, as many of them don't become apparent until later in the year. This means there is a risk that the botanical value is underestimated or notable species not surveyed. Certainly, I found many more species in the hedgerows and 'good' semi-improved grassland by Alston Lane on my visit on 19 July (see file note on that visit for species list).

We have received a comment from the Caton Group that the quality of the botanical assessment carried out by the ecological consultants is poor, that they have made taxonomic errors and have failed to adequately assess the value of the habitats present. Furthermore, the criticism was raised that no bryophyte or lichen survey was undertaken. I would concur the timing of the surveys was suboptimal for botanical surveys. I wouldn't expect bryophytes or lichens to form part of a survey in an area not designated for these species, and this opinion has been seconded by Amec FW. **No further survey effort for bryophytes or lichens is required for this application.**

I concur that some species identification errors were made, and that numerous species were not recorded. On the whole I would say the grasslands around Alston Farm are semi-improved rather than improved, but the species diversity is low, as they are heavily grazed. I did find one odd record of coralroot in the middle of one field. **Overall however, I don't**

think the shortcomings in the survey effort materially change the assessments on grassland value and I don't think it is necessary to resurvey the site.

I do however feel the hedgerows are more important than the consultants have valued them – I feel they are of county value rather than district value, due to their age, species-richness, and intact structure. This is pertinent as the significance of any failure associated with translocation increases, as any losses would be more valuable.

A survey for buckthorn along the hedgerow bordering Waye Lane was carried out following comments from the Caton Group, to assess their presence and location and vulnerability to the proposals – it has been concluded to the satisfaction of everybody that buckthorn isn't present along Waye Lane. .

Little Barton UWS (only the fields within Glendinning's ownership) was surveyed to assess if it is of CWS standard, and what management measures might be required to get it into good condition. I am still expecting this addendum report to be submitted. A conversation with the applicant's ecologist confirms that the grassland element conforms to CWS guidelines; no formal survey of the woodlands has been done, but the feedback so far is that the woodland bordering the field to the east is of good quality, though the woodland bordering the field to the west is in poorer condition. It would be positive to be able to include improved management of this UWS into the overall mitigation works and achieve a formal CWS designation as a result, as well as improved habitat. We have received clarification on the nature of the drainage works from the applicants. These comprise of clearing a ditch running adjacent to the lane by Little Barton Farm, as well as improving surface water interception from the catchment above via a channel or raised bump running across the track within the UWS to divert surface water from one side to the other. These works are considered minor and wouldn't impact upon the integrity of the site.

From the Extended Phase 1 habitat survey for Waye Lane, the consultants then scoped out the need for otter, water vole, badger, reptile, invertebrate, breeding bird or great crested newt surveys. I concur on reasoning for why no GCN, otter, breeding birds, invertebrate and water vole surveys were needed; I also concur with the rationale to approaching badger sett surveys. As stated above, I feel some reptile surveys should be undertaken on suitable habitat.

10.1b Extension Area Badger Report: Follows best practice. No comments.

10.1c and 10.1j Bat Survey Reports: I insert the comments made by our retained Greater Horseshoe Bat (GHS) consultant: '*My general comments regarding the reports are that they are two of the best I have ever come across. I thought they were very well structured, clear, gave concise and relevant information, and certainly showed their decision-making process well. A very good (excellent?) piece of work which should be used to illustrate how to provide an ecology report'*.

I queried with our GHS consultant whether the survey effort, interpretation and valuation was sufficient (yes, follows best practice). I also asked whether the consultants should have done more to find out where the best GHS foraging areas were, given they claimed these are off-site, and also to do more to find any of the nearby roosts that the consultants claim must exist near, but not within, the application site. The reply from our retained consultant was that one could, but that it wouldn't probably add much value to the information gained. One

would be better off ensuring that the avoidance/mitigation/compensation and enhancement measures minimise impacts and allow for the habitat to continue to offer good commuting and foraging habitat.

However, given the proximity of potential works to four mine adits in and around Little Barton Fields UWS, these adits are being surveyed (externally) for bats, to assess their value, how they contribute to the overall picture of bat use of the area, and what any impacts resulting from the application might be.

Appendix 10.1d Breeding Bird Survey Report: Follows best practice. No comments.

Appendix 10.1e and 10.1k Dormouse Survey Reports: Follows best practice. No comments.

Appendix 10.1f Great Crested Newt Survey Report: Follows best practice. No comments. Scope of survey discussed and agreed in March 2015.

Appendix 10.1g Extension Area Reptile Survey Report: The methodology of where the survey was carried out follows best practice, and the majority of the extension area fields do seem to offer very low potential for reptiles. However, the grassland along the Waye Lane replacement route, as well as the grassland bordering the quarry/Alston Lane was considered suitable for reptiles and is being surveyed.

Appendix 10.1h Extension Area Invertebrate Survey Report: Given the absence of known presence of any rare or notable invertebrates on site, the survey methods and effort, reporting and valuation (District) appear appropriate to me. I have received comments from Caton Group that the consultant overlooked subterranean interests, didn't assess veteran trees or soil invertebrates.

We received comment from the Caton Group of the presence of rare subterranean invertebrates, *Microniphargus leruthi* and British cave shrimp *Niphargus glenniei*, in the watercourses in the application site. The ES provided no information on subterranean invertebrates. The British cave shrimp is on the citation of Buckfastleigh Caves SSSI – though proposal won't affect that population. As stated above, Environment Agency has requested, prior to determination, a survey of subterranean habitats and species on the groundwater catchment of the Kester Brook. The EA has also asked for three years of monitoring, post determination, on the all water receptors which are potentially at risk prior to any quarrying occurring in the extension. The EA has also asked for three years of monitoring, post determination, on the all water receptors which are potentially at risk.

Surveys for terrestrial invertebrates are not usually included in EIAs and the area is not designated for rare invertebrates. **AmecFW concur that no additional survey effort for terrestrial invertebrates, or veteran trees, is required.**

Views on mitigation/enhancement/restoration:
The progressive restoration of habitats during the operational life of the quarry, during the final habitat restoration phase (i.e. following cessation of quarrying activity) and management post completion of the restoration phase are described in three main documents the Ecological Mitigation and Enhancement Strategy (EMES), the Outline Land Management Plan and the Outline Restoration Strategy.

In general, the EMES provides sufficient detail regarding habitat creation and management at this stage of the project (e.g. application stage). On the whole, the proposals made are satisfactory in that they address the important habitats and species present, run throughout and beyond the application timeframe, and seek to frontload habitat creation measures and oversupply on the ecological balance, as calculated through the Defra Matrix for Biodiversity Offsetting. The restoration proposals purely address elements being put in following cessation of quarrying, with the majority of 'restoration'/habitat creation measures being undertaken during the time the quarry is still active. Suggestions for further mitigation and restoration measures are made below.

There was some confusion arising out of the fact that the various biodiversity measures have been split out into the three documents: this meant that it was difficult to have an overall understanding of what the final benefits for biodiversity would be. Whilst factors such as duration of impacts, time taken for habitats to become established, risks associated with failed creation and/or translocation have been taken into account by using the Defra Offsetting Metric, this has not been teased out well in the text.

However, current overcompensation to allow for the factors above currently consists of 50%; failure rates associated with new creations are around 20%, and for hedgerow translocations consist of around 10%. The consultants have supplied evidence of hedgerow translocations that they have successfully carried out at a Glendinnings quarry in Cornwall, and also point out that the best grassland on the current application site is the grassland adjacent to Alston Lane, which is in fact the current quarry boundary and therefore indicative of the type of grassland that would be created. The majority of the habitat creation has been frontloaded to the scheme. The applicant has also prepared habitat enhancement works on the wider Glendinnings holding, including woodland management, grassland management and riparian zone management.

The Outline Land Management Plan and Outline Restoration Strategy are currently relatively light in detail. The restoration strategy particularly does not describe why the areas discussed in the document are relatively restricted. Upon querying this with the consultant, we have received an updated plan clarifying why the restoration appears the way it does: the existing northern quarry face has already developed into an interesting scrub community and therefore doesn't require any additional works; the same is true for the face adjacent to the A38, where blasting wouldn't be an option anyway as this would risk the stability of the A38. An area of marginal vegetation has been designed along the entire edge of the quarry, totalling 3.44 hectares. **We are currently exploring options with the consultants to see whether further post-quarrying measures couldn't be added – these include ideas such as floating (anchored) islands, or the creation of peninsulas.**

In the event of an approval, it is critical to impose a suitable planning condition to ensure that the detail is provided and agreed prior to the commencement of any works that provides the National Park Authority with the ability to control, to some extent, the outcome of the progressive and final restoration.

A major problem at present with the delivery of both mitigation and restoration is the lack of providing a mechanism through which these measures might be achieved, in terms of funding and governance. There is a need for a management group to be set up to oversee all ecological issues, and structures set in place in any approval to ensure they are integrated into the wider scheme and can be funded and addressed as necessary over the course of the extension works. Governance structures also need to be set out to ensure

that the national park authority has the powers to ensure the promised enhancement works will be put in place. These points have been put to the applicant who is seeking to address them.

The overall view is that the measures described would provide an overall biodiversity gain in the medium to long term. This is on the basis of (1) the measures can be secured, managed and funded appropriately and (2) the hydrology/hydrogeology of the area, and therefore wider impacts on the environment are as stated in the Environmental Statement (to be confirmed by a hydrogeologist).

Outline Operational Land Management Strategy: Broadly agree with strategic objectives; broadly agree with specific management objectives but am unsure how these relate to actions listed in the Conservation Action Statement (CAS) at the back of the EMES, and also the specific management objectives don't seem to be as comprehensive as those listed in the CAS – a clarification has been sought and will be provided in due course.

Proposed Extension Outline Restoration Strategy: Proposal is for 6 types of restoration along the quarry edge, depending on the aspect, the profiling and stage at which these can be delivered. The proposed habitats are species-rich calcareous grassland including Deptford Pink (Types 1, 2 and 3, but with different slopes, grazing regimes and amount of soil), scrub (Types 4 and 5, again with different aspects and slopes) and 'species-rich edges to amenity land' (Type 6). There is furthermore a proposal for a shallow margin to go around the entire quarry void. These proposals taken on their own are rather limited at present, both in geographic terms and in the variety of proposed habitats; however the consultants pointed out that the proposals shown in this document only feature the post-cessation aspects, and point to the raft of habitat creation and enhancement measures which are already taking place during active quarrying as progressive restoration. Nevertheless, additional options such as floating islands or peninsulas are being explored.

Appendix 10.3 Ecological Mitigation & Enhancement Strategy Stages 0-5: Includes a biodiversity budget and a conservation action statement. Document also describes operational proposals throughout these stages, all habitats and species affected and the impact without any mitigation and/or enhancement. Then the document lists the habitats to be created or enhanced and then moves to enhancements that can be made for species present. The document also includes examples of previous hedgerow relocation successes, and provides a proposed monitoring programme. Document appears in general well considered and thorough, whilst remaining realistic in what can be achieved though see suggestions below for additional mitigation and enhancement measures.

Suggestions for additional mitigation measures:

- Restore and sympathetically manage unimproved grassland in Little Barton Fields UWS (scrubbing over and losing its open habitat interest).
- Would also suggest that the overall land management of Alston Farm is addressed, inasmuch as the surrounding fields are semi-improved and have potential for enhancement if they were more sympathetically managed than they currently are.
- Also suggest addressing the lighting at South Dartmoor College playing fields to be more sympathetic, i.e. directional and downward/inward facing, to ensure more dark corridors are available for greater horseshoe bats in particular – whilst this is outside of Glendinnings ownership, this can be achieved through an appropriate s106 agreement.

Information to Support the HRA:
The applicant submitted a document to help inform an HRA by the Dartmoor National Park Authority. The methods used to undertake the screening follow standard practice, ie by separating screening into coarse and detailed screening. I concur with the applicant's consultants that South Dartmoor Woods SAC can be screened out prior to detailed screening.

The consultant then runs a detailed screening exercise for the South Hams SAC and Dartmoor SAC, and concludes at the end that there will be no likely significant effect by the development on these European Sites.

However, at the detailed screening stage, the document fails to take into account developments (current or proposed) within Teignbridge District Council. Given that the application site is right on the border of the national park to TDC, this is a serious oversight as HRAs need to take into account in-combination effects by other plans or projects. Without taking neighbouring plans or projects into account, no likely significant impact (LSE) can be concluded. It is the planning authority's responsibility to undertake the actual screening, and I have been provided with a list of projects and plans for the area adjacent to the application site by the TDC ecologist (Stephen Carroll), and have therefore been able to undertake the HRA Screening for the South Hams SAC and Dartmoor SAC.

Given the amount of uncertainty surrounding potential impacts on watercourses, I also consulted with the EA regarding impacts upon the Dartmoor SAC, as well as gathering further information from the applicant's hydrologist. **If** uncertainties surrounding the governance and funding, ie the actual delivery, of the proposed avoidance, mitigation, enhancement and restoration measures can be tied up securely, then there shouldn't be any impacts on the Dartmoor SAC and South Hams SAC – see HRA Screening Documents for further information.

Assessment of impacts:
A proposal to remove 21 hectares of habitat which is of up to county value in its own right and of county value for numerous protected species, and replace it with habitat that is of negligible value, is against policy DMD14 and poses various risks to the wildlife, including protected species, found on site. In addition, there are other areas of habitat loss associated with the re-routing of Waye Lane, and associated quarry works in the form of bunding and other measures. Not only is there the actual habitat loss to consider; one also has to think about the connectivity of the habitat (mainly via hedgerows) for the species that use the area, notably dormice and bats. Without any mitigation and enhancement works, there is the serious risk that populations become isolated, that important feeding grounds can no longer be reached, or require much longer journeys as animals have to travel around the new quarry rather than using the current hedgerow network or field systems currently available. This is pertinent in particular in relation to the Greater Horseshoe Bats within the South Hams SAC.

Against this backdrop, the applicant's consultants have prepared a thorough, extensive and well thought-through mitigation and enhancement strategy which runs in parallel to the construction and operational phases of the proposed quarry – these have been divided into stages 0 to 5. They have also prepared a restoration strategy for when the quarry ceases operation (stage 6).

The mitigation, enhancement and restoration strategy is probably about as comprehensive a strategy as I have seen, and we are in discussions with the applicant to further increase the amount of habitat creation works that will be undertaken. By reducing biodiversity to numbers (using the offsetting metric, which is standard best practice), the applicant shows there is on overall gain in biodiversity. There is still significant uncertainty about impacts on subterranean ecology, which will need to be addressed. Furthermore there is currently a lack of information on governance and adaptability of the mitigation and restoration plans. Finally, even if all of the above sticking points can be overcome, one has to bear in mind that this is a National Park, with very clear statutory purposes, the first of which is to conserve and enhance the natural environment. The area is currently of significant ecological value, so one needs to ask the question about the principle of the scheme, and how that sits with our statutory purposes.

At present I therefore raise a holding objection on the grounds of:

- **Uncertainties on hydrological impacts and consequent ecological impacts, and**
- **Uncertainties on whether mitigation and restoration proposals will be achievable or achieved, especially given inadequate information on funding and governance of ecological mitigation, management and restoration plans.**

I also have substantial concerns to development of such scale within a national park in an area of substantial ecological interest and request that paragraphs 115 and 116 from the NPPF 2012 are taken into consideration when determining this scheme.

Naomi Barker
DNPA Ecologist
12 October 2016