



## ENVIRONMENTAL STATEMENT

FOR

THE PROPOSED EXTENSION TO  
YENNADON QUARRY, IRON MINE LANE,  
DOUSLAND, YELVERTON, DEVON, PL20 6NA

## NON-TECHNICAL SUMMARY

06 July 2014

Job No. 7397 Rev. A

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<b>For and on behalf of John Grimes Partnership Ltd</b>			



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## NON-TECHNICAL SUMMARY

### Foreword

The Non-Technical Summary is intended to present the main development proposals and an assessment of how they will impact on the environment of the surrounding area. This is presented in plain language and also presented as a separate report: it may be distributed to serve as an introduction to the main issues that members of the public can readily understand.

This Environmental Statement (ES) has been prepared on behalf of Yennadon Stone Ltd in support of a planning application for the phased restoration and extension to Yennadon Quarry. This planning application follows a previous planning application No 0667/13 refused 14<sup>th</sup> July 2014 and consequently this updated ES gives consideration to Dartmoor National Park's conclusions in respect of the previous application.

The ES has been structured in accordance with best practice guidance as follows:

- Non-Technical Summary: published separately and providing a concise non-technical explanation of the contents and conclusions of the Environment Statement;
- Environmental Statement: setting out the assessment methodology, description of the site and proposed development and a consideration of planning policy issues. Each individual topic area identified in the Scoping Opinion is then outlined and assessed.
- Appendices (three volumes): Technical reports prepared by specialist consultants covering each of the topic areas. The Appendices are numbered to correspond with specific chapters of the ES. They are of a technical nature and intended to provide background to the corresponding chapters, which are more concerned with the planning implications of particular issues.

Copies of the Environment Statement are available to view on the Yennadon Stone website ([www.yennadonstone.com](http://www.yennadonstone.com)). Paper copies are available to view from The Clerk of Burrator Parish Council, or in the receptions of:

- Dartmoor National Park Authority, Parke, Devon.
- John Grimes Partnership Ltd, Leonards Road, Ivybridge, Devon PL21 0RU.

Alternatively, copies can be purchased (all prices include VAT) in the following ways:

- Environmental Statement and Appendices (printed): £200.
- Environmental Statement and Appendices (on CD and in case): £18.
- Environmental Statement without Appendices: £40.
- Technical Summary: £16.

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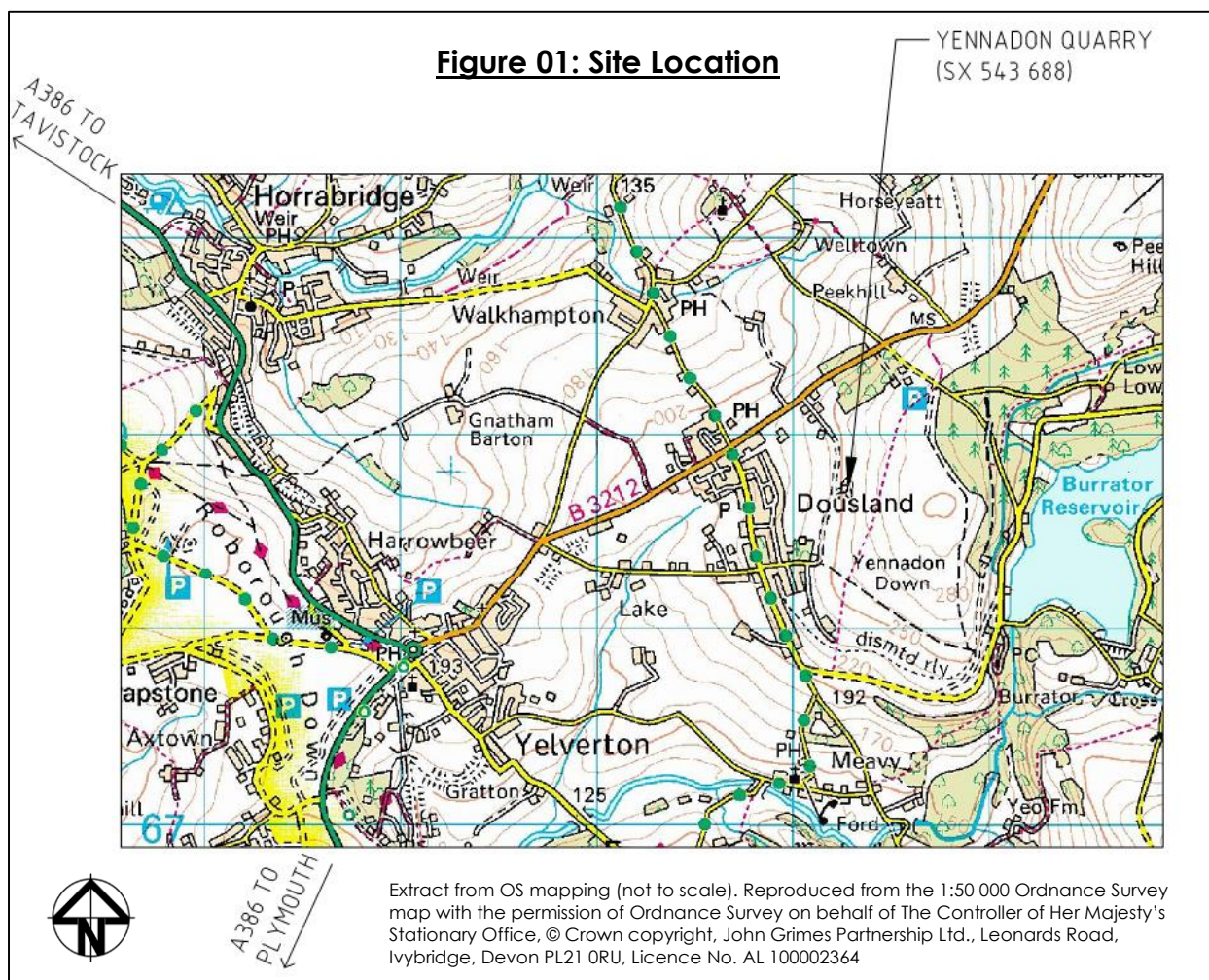
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### Third Party Rights

This report is issued to Yennadon Stone Ltd and does not confer or purport to confer on any third party any benefit or any right pursuant to the Contracts (Rights of Third Parties) Act 1999.

### Background

The existing Yennadon Quarry is located approximately 300m to the east of Dousland (National Grid Reference SX 543 688) on moorland known as Yennadon Down. It lies just within the western boundary of the south-western confines of Dartmoor National Park. Access to the existing quarry is gained from Iron Mine Lane via an unmetalled road that extends to the quarries western edge. The site location is shown on Figure 01.





The quarry is sited on common land owned by the Walkhampton Trust and administered by Lord Roborough's Maristow Estate. Yennadon Quarry has been run under its current lease from the Maristow Estate for around 80 years and in its current form since 1990, when Planning Permission was granted for 35 years (to 2025) for the, "....winning and working of minerals and continued use of existing buildings". The current operation of the quarry is subject to a licence agreement made in 2005 between the Walkhampton Trust and the current operator, Yennadon Stone Ltd.

Yennadon Quarry is an existing operational quarry providing building stone. This planning application is for the extension of the quarry along its northern face, in conjunction with phased restoration of the existing quarry. The quarry operators are seeking the extension to enable production to continue, as a minimum at current extraction rates and up to the maximum permitted; until the current planning permission expires in 2025. The operators intend to continue production up to 2025 regardless of the outcome of this planning application; however if permission is not granted, production levels will decline, resulting in a negative impact on employment and a source of local high quality building stone. Granting planning permission to extend the working area of the quarry will enable the quarry to sustain a viable future and continue to provide an invaluable source of local stone for building and restoration projects.

The red line area for the resubmission remains the same; however, there have been some fundamental changes, **mainly a reduction in the size of area delineated for extraction by approximately 35%**, changes in the screening bund configuration and a change in the landscape mitigation measures. It is important to note that with regard to this planning application **no change to mode of operation, hours, extraction rates, number of vehicles etc. is proposed**. The proposals are not for an increase in the level of activity at the quarry or increased vehicle movements. What is proposed is an extension of the area being worked within the existing operational timeframe for the quarry.

The existing quarry at Yennadon is currently listed in Dartmoor National Park Authority's Local Plan (Table 7: "Mineral Operations Currently Active in the Dartmoor National Park") as:

*Yennadon, Nr Dousland: Metamorphic; 1990; **Small**; Long-established quarry; Building, walling and ornamental stone; Comprehensive conditions.*

Based on the DNPA's definition of *Small*, *Medium* and *Major*, it is clear that the proposed development of Yennadon Quarry would remain a **Small** quarry.

The key considerations for this planning application are: what is the need for this stone; what implications arise from the impact of operations on the proposed extension area in the National Park; and do any benefits arise from the proposed reinstatement and aftercare.

### **Environmental Setting**

Yennadon is an historic quarry and has existed for approximately 150 years. The quarry pre-dates the nearby village of Dousland and the creation of the National Park. Yennadon Quarry is the only remaining operational quarry supplying local dimension stone within the boundary of the National Park. The quarry provides an invaluable source of building stone for local building projects as well as projects in other parts of Devon and Cornwall. Over the past 150 years the quarry has made, and continues to make, a significant contribution to the character and appearance of the built environment. As well as providing an important source of local stone, the quarry also represents part of the living cultural heritage and legacy of Dartmoor.

Yennadon Quarry is located on the lower 'moorland fringe' of Yennadon Down. Yennadon Down is flanked on its northern boundary by Dousland Plantation and farmland. To its east is Yennadon Plantation, beyond which is Burrator Reservoir. Bowdens Plantation and farmland lie to the south. To the west of Yennadon Down is a strip of fields used for grazing, beyond which is the village of Dousland. There is a Public Right of Way within 150m of the proposed extension. With the exception of the existing quarry area, commoners have grazing rights across the Down and the public has a right of access.

The site is located within Dartmoor National Park, which is also a designated Environmentally Sensitive Area (ESA). There are no other statutory or non-statutory designations covering the site.

The boundary of the existing quarry lies 15.5m from the adjacent farmland to the west at its closest point. The quarry is located in a 'landscape character type' known as 'Upland Moorlands with Tors', close to the boundary with the 'Moorland Edge Slopes' area. One of the key characteristics of 'Upland Moorland with Tors' includes the history of mineral workings and quarries in the area. Just over 300m south and southeast of the existing quarry (and adjacent to the end of Iron Mine Lane) are the remains of Yennadon Mine (1830 to 1850). Notable pits and burrows are all that remains of this iron, copper, tin and manganese mine, with the shaft and adits having been obscured over time. Several other small quarries and pits are recorded across Yennadon Down and on the south-eastern flank of the Down are two notable stone quarries, collectively known as the Burrator Quarries. Together they are designated a Site of Special Scientific Interest (SSSI) due to their geological and geomorphological interest.

The historical mines and quarries in the area were in no small part responsible for the development of the tramways and railways in the area. The access track that extends from Iron Mine Lane to the quarry and continues along the west of the quarry to the north was originally the line of the old Plymouth and Dartmoor Tramway, formed to transport goods and building materials. A siding to the railway is shown to extend into Yennadon Quarry on the Tithe and early OS maps.

### Existing Planning Permission

Current Planning Permission was granted in 1990 for 35 years (to 2025). The Local Planning Authority (LPA) is Dartmoor National Park Authority (DNPA). Within the Planning Permission, agreements were entered into with Devon County Council in terms of the following:

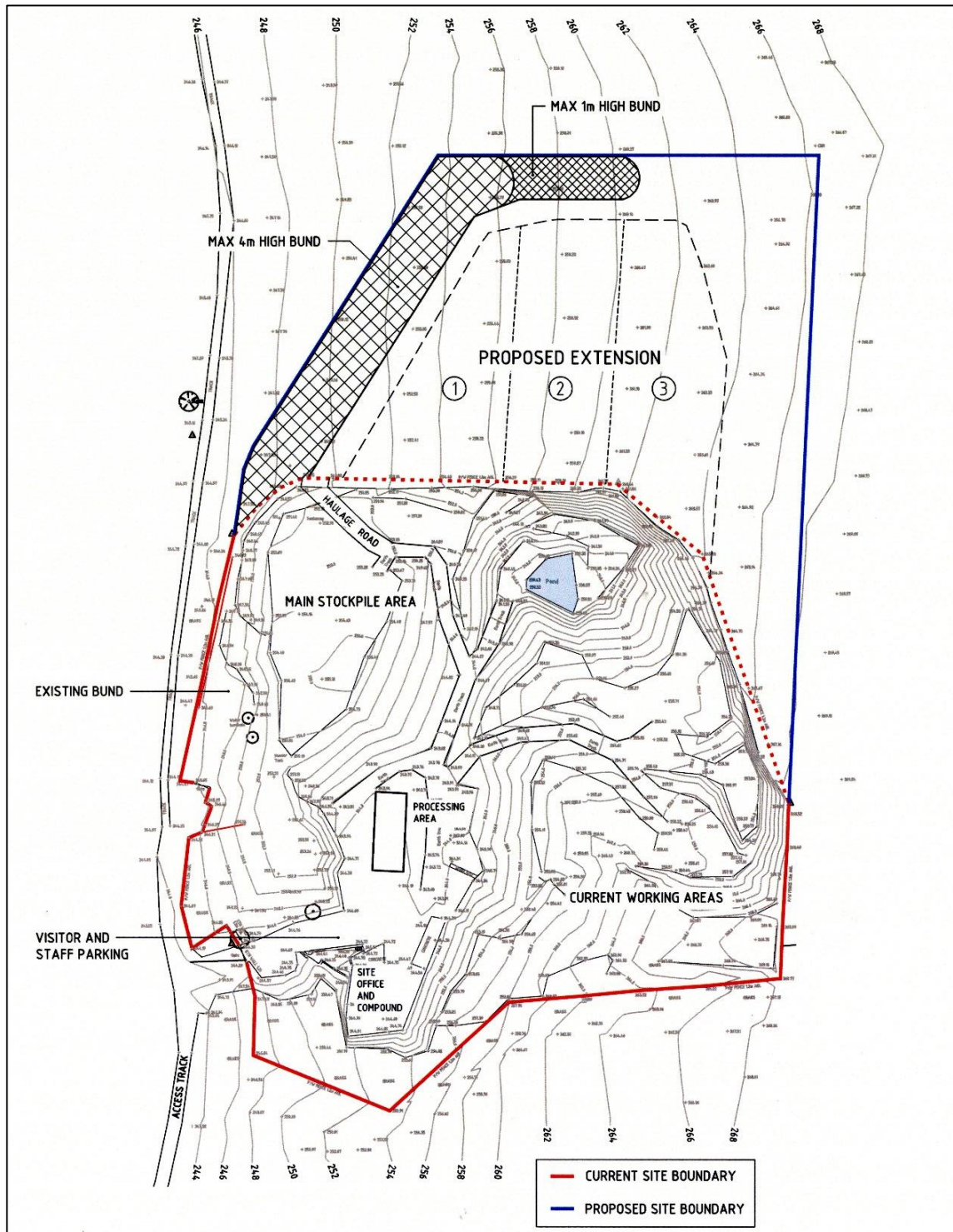
Town and Country Planning Act 1990	Section 106
Local Government Act 1972	Section 111
Local Government (Miscellaneous Provisions) Act 1982	Section 33

The Planning Permission is conditional; some of the existing conditions that are most pertinent (unless subsequently agreed otherwise) are:-

1. Total amount of material removed shall not exceed 14,000 tonnes per annum.
2. Lorry trips shall not exceed 35 in any week. [Tractors and trailers are not included in this total].
3. Landscaping – the construction of a low bund along the western rim of the quarry is stipulated.
4. Quarrying operations are restricted to periods 07:00 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays; however, essential maintenance, pumping etc., can be carried on outside of these periods subject to LPA satisfaction.
5. Lorry movements are restricted to periods 08:00 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays.
6. A minimum of 75% of the total tonnage of stone leaving the quarry each year shall be building and walling stone – ‘to ensure that the output from the quarry contributes to the achievement of conservation objectives in the area’.
7. No blasting is to be carried out without agreement.
8. At the conclusion of workings, the site is to be landscaped.
9. The entrance area should remain undisturbed due to possible archaeological remains.

### Proposed Quarry Extension

The development proposals are for the extension to the working plan area of the quarry, while concurrently infilling parts of the existing quarry. The proposed extension area is located to the immediate north of the existing Yennadon Quarry as shown on Figure 02.



**Figure 02: Site Plan Showing Proposed Extension Area Layout**

The proposed extension area is irregular in shape, occupies an area of approximately 1ha and slopes from the east down towards the west. It currently comprises open moorland forming part of Yennadon Down and Meavy Common.

There will be no change to mode of operation, hours, extraction rates, number of plant, etc. What is proposed is an extension of the area being worked within the existing operational timeframe for the quarry, as well as a **reduction** of the production limits (to 10,000 tonnes per annum) and a **reduction** of lorry trips (to a maximum 30 round trips per week) to those set out in the current planning permission conditions.

The decision to extend the quarry to the north was based on discussions with DNPA. The size of the extension was jointly decided between the Local Authority and the quarry operators. The boundary line was extended by a further 15m along the northern boundary following a public consultation to accommodate the construction of a low bund / landscaped buffer area to reduce potential visual and noise impacts to local residents. Following the July 2014 decision, the size of the actual area to be extracted was reduced and the extraction and restoration rationale modified to reduce visual impacts. The fundamental proposals are summarised below:

- The red-line area remains the same; however, the proposed extraction area has been substantially reduced; the eastern limit of excavation has been reduced to the 264m AOD contour (as opposed to 268m AOD previously = 4m reduction). The overburden (~3m deep) will be excavated at a 45° angle and planted (approved trees/native plants). Together, this equates to a significant reduction of overburden/rock visible above the height of the new bund from viewpoints to the west compared to the previous submission.
- The new 4m high bund will be constructed along the western boundary of the extension to provide visual and noise screening. The bund will be graded into the existing slope profile along the northern boundary. The lower 1m of the bund will be planted with approved trees/native plants and the upper bund grassed. On completion of quarrying the upper bund will be removed and planted with approved trees/native plants.
- The un-vegetated northern end of the existing bund will be battered back to a lower angle (and graded into the new bund), soiled and planted, all as part of pre-excavation works.
- The eastern side of the existing bund will be re-graded and upper 4m will be soiled and planted to improve view points from the east.
- Yennadon Stone and the landowners have agreed to jointly fund the flailing / swiping (cutting down by mechanical means) of 14 acres (5.67ha) of gorse and bracken overgrowth (to restore land to grazing ground) to compensate for enclosure of the 1ha extension area.
- Once extraction has ceased in the existing quarry, the south-east / east faces will be backfilled to a near-natural profile, soiled, planted and returned to moorland.
- The rolling landscaping and planting programme within the existing quarry (which will begin when permission is granted), will restore 7,040m<sup>2</sup> of land. This area is approximately a third larger than the new extraction area 5,270m<sup>2</sup> (i.e. the area restored to moorland within the



existing quarry area is greater than the new extraction area). Restoration will begin 8 -10 years earlier than under the current planning condition requirements.

- The new extension area will be worked from west to east in three sections, so that the initial extraction phases will be screened to the west by the new bund. The extraction area will be fenced off in two phases so as to minimize loss of grazing / public access. A landscaped buffer zone will be formed along the eastern and northern boundaries, which will be planted with approved trees/native plants.
- Final restoration will be complete by end of 2025. The final restoration scheme incorporates enhanced habitat and bio-diversity. An aftercare plan will be agreed between Yennadon Stone Ltd and the Maristow Estate.
- A public information board on the history of the quarry and tramway will be erected at the quarry entrance.
- There are currently no common land rights or public access rights to the existing quarry area. The Maristow Estate have indicated that this will remain the case should planning permission be refused; i.e. the quarry will remain fenced off, primarily due to health and safety reasons associated with the quarry faces. Any future access will be subject to necessary negotiation between the Maristow Estate and the DNPA. Any access would be subject to the quarry being suitably and safely restored, as per the proposals. A suitably restored and accessible quarry could provide future opportunities for the enjoyment of the biodiversity and special landscape features of the restored quarry by the public.

Yennadon Stone Ltd has the full support of the Maristow Estate and Walkhampton Trust for its quarry expansion and restoration plans.

### EIA Requirements

Following a formal Screening Opinion, DNPA concluded that an Environmental Impact Assessment for the Yennadon proposals was required. They indicated that:

1. **The proposal does not fall within Schedule 1 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.**
2. **The proposal does fall within Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999: "Extractive industry- (a) Quarries, open-cast mining and peat extraction".**
3. **The proposal falls within a National Park defined in The Regulations as a 'sensitive area', thus the thresholds identified in Schedule 2 do not apply.**
4. **There is a need to establish, through EIA, the significance of the impact the proposal would have on the landscape and visual amenity, ecological interests, archaeological interests, and pollution and other nuisances.**

DNPA, following discussions and consultations with a number of bodies, set out in their Scoping Opinion that the EIA should consider in detail the following issues:

- **Socio Economic Impact** – Consideration should be made of access and public amenity issues in relation to the loss of land open to public access; impact of security / safety of the site; and impact on the grazing rights of commoners.
- **Archaeology** – Assessment is required by a qualified archaeologist.
- **Process Pollution** – Consideration should be given of the adequacy of existing arrangements and an assessment of the potential for the proposal to result in an increase in dust generation.
- **Emissions** – Consideration should be given of the adequacy of existing arrangements and an assessment of the potential for the proposal to result in an increase in emissions.
- **Surface Water Management** - Consideration should be given of the adequacy of existing arrangements and an assessment of the potential for the proposal to result in changes to the local drainage regime, impact on surface water management and any avoidance or mitigation measures deemed necessary.
- **Geology and Hydrogeology** – The site is identified as being on an Aquifer of Intermediate Vulnerability; it is approximately 450m from an inner water Source Protection Zone 1 and approximately 200m from the Devonport Leat. The EIA should consider the impact of the development on these features.
- **Noise** - Consideration should be given of the adequacy of existing arrangements and an assessment of the potential for the proposal to result in an increase in noise generation and any potential impact on sensitive receptors.
- **Traffic** - Consideration should be given of the adequacy of existing arrangements and an assessment of the potential for the proposal to result in an increase in traffic generation.
- **Ecological Impacts and Biodiversity** – A Phase 1 Habitat Survey is required and any specialist surveys then identified as necessary. It should include a consideration of avoidance, mitigation and compensation measures as necessary.
- **Visual Impact** – A landscape and visual impact assessment, from key viewpoints, should be made, including impacts during and after operation.
- **Cumulative Impacts and an Assessment of Alternatives**

### Planning Policy Context

The Scoping Opinion prepared by DNPA requires assessment of the proposals at Yennadon Quarry against the planning policy context. The ES sets out the planning policy framework germane to the consideration of the planning application and addresses a number of matters raised in the officer report to the planning committee in the previous planning application.

The Planning Policy Framework impacting on Yennadon Quarry has been subject to change during recent years. Key elements are; the introduction of the National Planning Policy Framework (NPPF), which has replaced the previous Planning Policy Statements and Mineral Planning Guidance; the National Planning Practice Guidance (NPPG), which contains technical guidance on Minerals Planning; the replacement (in part) of the Local Plan with a Core Strategy and; the introduction of a Development Management DPD. The manner in which key policy tests have been met is addressed in a number of individual reports that form the ES.

Set out below is a review of the material considerations considered appropriate to this revised planning application; the planning policy framework; the reason for refusal of planning application 0667/13; and policy appraisal and conclusions.

The National Planning Policy Framework sets out a presumption in favour of sustainable development and reaffirms the legal requirement that planning decisions should be made in accordance with the development plan unless material considerations indicate otherwise.

With regard to mineral development there is a general presumption against new quarrying in National Parks as this does not accord with their strategic/national purpose. However policy provision is made for Mineral Development, including specifically, **small scale** quarrying of traditional building stone where it would not cause damage to matters of acknowledged importance.

The planning refusal raised a number of issues. The key issue running through all of the reasons for refusal is the question of judgement of scale and the application of appropriate tests against which the judgement should be made. At the heart of this is the use of the term "major" and its definition particularly in respect of an application for an extension to a building stone quarry. In assessing the application it would appear from the officer's report and internal correspondence that the starting position of the DNPA was that the application was a "major" proposal. The report makes reference to the Development Management Procedure Order (DMPO) which defines all mineral extraction as major development. This reliance on the DMPO to provide a definition of major in the context of Policy COR22 is incorrect (Aston and another v SOSCLG and others [2013] EWHC 1936 9Admin)). The DMPO sets out a procedure to be followed by different types of application, it does not prejudge how an application should be considered in a policy context.

The report to the DNPA Planning Committee does refer to COR22 on the basis that the policy does refer to small scale and therefore it is appropriate to consider whether the proposal is major with reference to the Core Strategy. The report goes on to state: "Given the size of the site and



the proposed extension, the tonnage arising, the operating parameters and the location of the site in the National Park it is considered that the proposal is major". Considerable changes have been made to the proposal in order to reflect the underlying concerns behind this statement, however as a matter of principle the starting position behind this assumption with regard to the previous application is incorrect as a matter of law, definition and policy. In respect of this later point there is no evidence to suggest that a "minor or intermediate" view of the quarry has been taken or considered, particularly as the purpose of the quarry is to provide building stone and not minerals or aggregate and it is surprising that there is no discussion of this point in the committee report.

There are three elements to Policy COR22, which provide for an assessment of a stratum of quarrying operations; major, other and small. That the Policy COR22 is expressed in its current adopted form arises from concern expressed at the Examination of the Core Strategy that there was a potential lack of consistency between the Core Strategy Policy and the then National Policy. DNPA proposed the introduction of the term major into the first part of COR22: "This would differentiate the large scale minerals development from 'small scale quarrying,' which would be addressed by the second part of that policy." (Public hearings matter 7 evidence of DNPA). This view of differentiated scale is supported by the descriptions of each quarry set out in Part 4 of the Dartmoor National Park Local Plan Review 2004. Furthermore it is clear from these statements and the policy that there is no requirement for the building stone to be used within the National Park.

It is noted that Policy M4 of the Local Plan Review, which provides a template for the issues that an application for the extension of mineral extraction must address, formed part of the reason for refusal. It is a moot point as to whether or not the use of this policy is appropriate to this application given that Policy M3, which was specifically superseded by Policy COR22, contained a presumption in favour of small scale building stone quarries, subject to what may be considered a lesser series of tests.

Both the NPPG and the Development Plan separate small scale building stone quarries from mineral extraction. Elsewhere in the Development Plan (and NPPF and NPPG) is the need for development to meet particular policy requirements and each of these matters is the subject of detailed examination and separate reports. These are set out in the main body of the Environmental Statement and addressed in the individual sections.

Collectively the policies provide a number of key tests against which the proposals for an extension to the working area at Yennadon Quarry will of necessity need to be judged. Critical amongst these are:

- The protection of the National Park per se for its beauty, wildlife and cultural heritage.
- Support for the socio-economic vitality of the National Park.
- Need to maintain the source of local stone in the context of rigorous examination of the impacts and that the need cannot be met in other ways.
- Maintenance and enhancement of character and appearance via the use of local materials
- Protection of amenity
- Accessibility and sustainability

Whilst MPS1 is no longer extant the same socio economic requirement is a key plank of the NPPF. Of further importance is the question of need and the availability of additional or alternative sources of suitable stone. Put simply "why do this here in the National Park and not elsewhere". These matters are examined in detail within the Socio Economic Chapter of the ES, which concludes:

- There are a limited number of quarries serving the building industry with building stone in Devon and Cornwall
- Of the existing quarries none produce a stone of the right quality with regard to strength, colour, bedding planes and rustic finish. The unique qualities of the stone from Yennadon Quarry arise from its position within the Tavy Formation and the contact metamorphosing that has taken place as a result of the nearby granite intrusion.
- Yennadon Stone complies with Building Regulation requirements as a construction stone
- Alternative but as yet untapped sources also lie within the Dartmoor National Park.
- Planning policy and design guidance within the National Park and surrounding districts has a presumption in favour of maintaining the character of the area, particularly in conservation areas, via the use of natural and local materials.
- It is the stone of choice for many builders and local authorities alike with it being specified for a large number of local developments and via materials conditions on a number of planning consents.
- Critically Yennadon is the only quarry that can provide commercial quantities of natural quoins and is also the first stone of choice as a replacement for Hurdwick stone which is the principle stone in Tavistock (World Heritage site).
- Yennadon stone is a very significant element in defining the character of the communities on the western 'moorland fringes'.

The above sets out in brief the reasons why permission should be granted for the extension of the working area to the existing quarry. As previously stated detailed information on each of the matters of acknowledged importance is contained in the relevant sections of the ES. These

proposals seek an extension of the working area of the quarry in a northerly direction within the context of a substantially revised landscape strategy. They do not seek to, or will bring about a, change in working hours, vehicle movements, number of employees, rates of extraction, etc. Consequently matters with regard to noise, dust, etc. should remain unchanged.

The public consultation event associated with the previous application highlighted two areas where improvement could be made. The first of these was noise which was associated with a particular piece of equipment which has now been replaced. The second was visual impact. Following the previous refusal a comprehensive review of the landscape approach has resulted in a reduced working area and enhanced landscape area and strategy which addresses these matters.

### ES Method Statement

The ES is structured in accordance with the best practice guidance. Each topic area is covered in an individual technical chapter and is formatted as follows:

- An **introduction**;
- A description of the survey **methodology** followed;
- A summary of **baseline conditions** and survey results (if appropriate);
- A description of the **assessment of impact** of the development, initially in the operational phase and subsequently during the restoration stage of development;
- A description of the **mitigation strategies** to be adopted to address the effects both in the operational phase and in the restoration phase; and
- A description of the **residual effects** of development following the implementation of the mitigation strategies.

The assessment of environmental effects is set out in accordance with appropriate Regulations or guidelines or, where this is not the case, based on expert judgment. Care has been taken to ensure that the effects, if any, arising from the assessment work have been the subject of review to ensure consistency of approach. Any effects are assessed according to four criteria:

Geographical context	<ol style="list-style-type: none"> <li>1. Local</li> <li>2. Regional / District</li> <li>3. National</li> <li>4. Global</li> </ol>
Nature of effect	<ol style="list-style-type: none"> <li>1. Beneficial</li> <li>2. Neutral</li> <li>3. Adverse</li> <li>4. Not significant (negligible)</li> <li>5. None</li> </ol>

Duration of effect	<ol style="list-style-type: none"> <li>1. Short term: &lt; 12 months</li> <li>2. Medium term: 1 to 5 years</li> <li>3. Long Term: &gt; 5 five years</li> <li>4. Permanent / irreversible</li> </ol>
Significance of effect	<ol style="list-style-type: none"> <li>1. Major – these effects are likely to be important considerations in the planning process, depending on the scale and relative importance attached to the issue in planning policy and development plan terms.</li> <li>2. Moderate – adverse effects of this kind are not likely to be key decision-making issues. Effects, beneficial or adverse, will be experienced albeit mitigation measures and detailed design work are likely to ameliorate the impact.</li> <li>3. Minor – these effects may be raised as local issues but are unlikely to be of importance in the decision making process. However, they are of relevance in enhancing the subsequent design of the development and consideration of mitigation measures.</li> <li>4. Insignificant – where no significant effects are identified or would be perceptible.</li> </ol>

### Methodology for Assessment of Impact and Effects

The ES also assesses the cumulative effect of the development and, if appropriate, any indirect effects.

### Socio Economic Impact

In order to fully evaluate the socio-economic impacts of the quarry, three reports were produced:

- *Yennadon Quarry: Socio-Economic Report* by Vickery Holman Property Consultants; to determine the potential impact of the proposed quarry extension on a number of social and economic factors. The socio-economic study considered product market; employment; site security; highways and access; and designation of Yennadon Down as Common Land.
- *Yennadon Quarry: Product and Alternative Sources* by John Grimes Partnership Ltd.; to provide additional information on the stone produced at Yennadon Quarry and its market, as well as considering the alternatives should the quarry cease operation.
- *Yennadon Stone and the built environment: A review of the important role that stone from the quarry plays in maintaining the character and appearance of the local area*, by Clifton Emery Design; to explain the important role that the quarry plays supplying stone that supports the quality of building design and historic building conservation in the local area and moreover within the National Park itself.

The existing quarry operations are close to the boundary limits of the currently permitted working area. Yennadon Stone Ltd. has indicated that that the remaining extractable resources within the existing quarry boundary will not sustain the production rates currently achieved by the quarry. Should planning permission be refused, the operators intend to continue production up to 2025, however production levels will decline, resulting in a negative impact on employment

and a significant reduction in the availability of local high quality building stone. The proposed extension will simply enable economic activity and full employment to be maintained.

Yennadon is the only remaining operational quarry supplying local slate dimension stone within the boundary of the National Park. The quarry has been in existence for approximately 150 years and represents an important part of Dartmoor's cultural heritage.

Product Market - The stone produced from Yennadon Quarry is a Dartmoor Rustic Stone. It is a metamorphosed sedimentary rock (Hornfelsed Slate) that is well suited to and favoured as a building stone due to its indigenous appearance, and resistance to both frost and weathering. It has an established reputation in the market place as a good, flexible, high quality building product. Yennadon Stone has distinct characteristics that make it unique. The stone is flat bedded and nearly all of the joints (naturally occurring discontinuities) within the rock are virtually set at right angles, so that rectangular or square blocks are formed resulting in all natural faces having the rustic colouring. It has distinct subtleties in colour, tone and patina creating a variegated overall appearance when seen in a wall. Its colour ranges between yellowy brown hues, some with iron oxide staining on joint faces, through to bluish grey tones on the cut faces. Yennadon Stone is a particularly strong and durable slate stone. It is not prone to weathering and as a result does not tend to flake or delaminate, unlike some other slate stone types in the region.

The main source of demand for the material comes from the construction industry, for new builds, extensions, boundary walls and building repairs. The market for the stone is principally throughout Devon and Cornwall with just 1% of supply going further afield. It is important to note that current levels of supply from the quarry underpin the viability of the operation. A key role of Yennadon is making suitable stone available for use on Dartmoor in areas where it has been used historically and is an integral part of the local scene. This is acknowledged in the existing (1991) planning conditions (condition b), which states: "*A minimum of 75% of the total tonnage of stone leaving the quarry each year shall be building and walling stone **to ensure that the output from the quarry contributes to the achievement of conservation objectives in the area***". If the quarry only supplied stone to projects in the National Park then it would be unviable and cease to operate. Making stone available for building projects further afield directly affects the ability of the quarry to make local stone available – this has been the case historically. In addition, as discussed previously, there is no requirement within the planning policies that the building stone should be used within the National Park.

Whilst areas of the 'high moor' are mostly associated with the use of granite in the construction of buildings and other structures, the 'moorland fringe' has a legacy of building using metamorphic stone that is more consistent with the geology of these areas. Slate stone is a predominant building material in the 'moorland fringe' settlements and is very evident in the fabric of buildings, walls and other structures. Within the National Park slate building stone has had a major role in the makeup of the historic built fabric in many local settlements including: Ashburton, Yelverton, Dousland, Sheepstor, Brisworthy, Horrabridge, Buckfastleigh, South Brent, Walkhampton, Meavy, Burrator, Sampford Spiney, Mary Tavy, Peter Tavy, Buckland Monochorum, Crapstone, Milton Combe, Shaugh Prior, Hoo Meavy, Clearbrook, Lovaton, Wotter and Roborough. Outside of the National Park, settlements such as Tavistock (World Heritage site), Okehampton, Plymouth, and Ivybridge, as well as numerous smaller hamlets, building groups, farmsteads and one off buildings, boundary walls and agricultural structures, use slate stone that is similar to that sourced from the Yennadon Quarry. Whilst Yennadon Stone may not have been used in all settlements where metamorphic slate is the principal stone (other stone quarries within the National Park are all now disused), Yennadon does provide an appropriate construction material and in fact the only remaining slate stone quarry that is available within Dartmoor National Park. The quarry plays an important role in making appropriate building stone available for building and conservation projects in these areas.

Planning policies continue to encourage the use of local materials and recognise the importance of sourcing and utilising appropriate local stone in the design of new buildings and structures throughout the local area and within the National Park. It is clear that the use of appropriate local stone is key to the delivery of a plethora of planning policy requirements in the DNPA area and in surrounding local authorities, including the Tavistock World Heritage site.

The Strategic Housing Land Availability Assessments (SHLAA) produced by DNPA identifies where land is available to deliver housing into the future. Within the National Park about 40% of the 90 sites identified are within localities that are characterised geologically as being slatey stone areas. The availability of a high quality source of locally appropriate stone will be important to achieving successful developments that are locally distinctive and which have regard to the intrinsic character of the moor. This becomes increasingly difficult if the principal sources of local stone are not available – a viable and operational Yennadon Quarry is crucial to ensuring that the appropriate local stone is available for the design and construction of these developments.

Alternative Sources - There are a variety of different 'slate' stone types that have historically been quarried throughout Devon and Cornwall. The term 'slate' for building stone is loosely applied to mudstones and siltstones that have undergone various grades of metamorphism. The nature and

appearance of these stones varies greatly; and can be weak or strong, durable or non-durable, dark or light grey, have green, to yellow, to red hues, and be characterised by brown iron oxide and/ or quartz veining.

Most other existing 'slate' quarries in the region produce a dark grey "Blue" slate (which can be used as both traditional roofing slate and dimension stone, etc.). There are limited other sources of 'Rustic Stone' within the Southwest. Whilst there are slates that share some 'characteristics' with Yennadon Stone, none extract the high quality Hornfelsed Slate produced at Yennadon. As such, there are none that can provide exact and viable alternatives in terms of stone type, quality, shape, colour, strength and durability that exist.

There are just two other sources of a rustic stone, with some similarities in appearance, available within a 30 mile radius of Yennadon, namely Mill Hill Quarry and Lantoom Quarry. Neither provide appropriate replacements with regard to stone type, quality, colour, strength and durability.

The Hornfelsed Slate deposit that Yennadon Stone quarries lies almost predominantly within the boundary of Dartmoor National Park. Therefore, alternative sources of Rustic Stone from high grade Hornfelsed Slate are very limited outside the National Park and opening a new quarry within the National Park is not considered viable.

Employment - Yennadon Quarry is an established employer within an area of Devon which offers limited opportunities outside of the service, agricultural and tourism industries. The quarry currently employs 27 people including the two directors. Eleven persons are aged between 18 and 24 with a further nine aged between 25 and 30, making up the majority of the staff employed. Against the general economic background the preservation of opportunities for youth employment as skilled labourers and the retention of employment for older skilled workers should be a paramount consideration. This is particularly relevant in a rural economy, such as West Devon/Dartmoor/South Hams/South East Cornwall, where 12 of the employees reside. The current workforce is adequate to operate the extended quarry on the basis of current annual output levels. There is no suggestion that the grant of permission will create the immediate opportunity for new jobs. It is noted in the DNPA Core Strategy Examination that the local significance of the minerals industry was recognised; paragraph 5.14.2 of the Core Strategy (June 2008) states inter alia: *"The two large quarries in Dartmoor – Linhay and Meldon – are important components in the local economies of Ashburton and Okehampton and the surrounding areas. The smaller quarries also contribute to the range of employment opportunities in their own localities"*.



Given the limited opportunity in the locality for skilled quarrying jobs the loss of the 27 jobs at Yennadon Quarry will have ramifications on the local economy through the loss of the economic activity of those employees. In using Gross Value Added (GVA) figures (per person), this would result in a potential loss of £159,264 per year from rural communities, and £250,000 from the region (based on the lower 2012 employment figures on 21 jobs). This increases to £827,075 if we apply the GVA per job across the region, which is arguably a more appropriate measure. As a result, it is considered that the loss of this quarry would have a substantial economic impact on the region. Clearly the proposal would have a significantly positive impact on the area in terms of the economy.

Security - The existing quarry operation is fenced along all boundaries to prevent third parties and grazing stock from entering the operational area. The current quarry has an exemplary record of safety. The proposals include the provision of security fencing around the new extension to ensure continued safety measures at the quarry.

Highways and Access - The extended quarry operation can be serviced by the existing roads and infrastructure. The proposed quarry expansion will not place any additional pressures on the existing transport network or the wider area.

Designation of Yennadon Down as Common Land - The proposed development will not have an undue impact on the access rights of the public. The extension is located on the western periphery of Yennadon Down, which has little or no historical, ecological or aesthetic interest, and will not impinge on any of the existing footpaths that are routinely used by the public.

The main social impact arises from the loss of approximately 1% of the common land used for grazing. However, an assessment into the Common Land indicates that a flailing/swiping programme on 14 acres (5.67hs) of gorse and bracken overgrowth to return it to grazing land would more than compensate for the loss of the land by the proposed extension (1ha). It is considered that although the loss of Common Land is adverse, as the area that is affected is small (less than 1%), the overall significance is therefore minor.

Summary of socio-economic impacts - Notwithstanding the benefits of maintaining the viability of the quarry from a building design and conservation perspective, there are many wider socio-economic benefits that are associated with the continued operation of the quarry – not least of which would be the continued operation of an important part of Dartmoor's cultural heritage and the positive economic benefits. It is considered these positive benefits, represented by the proposal to extend the quarry, far outweigh the social impacts. This has particular relevance as



it is possible to mitigate against a number of the negative aspects of the application. Site restoration will ensure that there will be no permanent residual effects of the development upon social impacts.

Whilst the quarry remains viable and stays open for business, the availability of Yennadon stone means that the tradition of using high quality and locally appropriate local stone in new buildings and in the conservation and restoration of historic structures can be maintained into the future. It also means that an important aspect of life on Dartmoor can continue.

### **Archaeology**

An assessment of the local history and archaeological features present at the site and surrounding areas has been made. The assessment indicated three historic sites (Yennadon Quarry; Dartmoor Tramway; and medieval to post-medieval field systems) within or close to the proposed extension area.

Yennadon Quarry – there are no features or structures of archaeological significance identified within the present quarry, with the exception of the site of the tramway and siding (see below). No mitigation measures are required for the actual quarry.

Dartmoor Tramway - Historic mapping suggests that the tramway siding lies beneath the present quarry entrance and within the southern part of the quarry (parking area and site offices). It is not known if any part of the siding survives within the quarry area. There are no proposed alterations to this area, which will remain undisturbed (as stipulated in the current planning permission). The tramway passes immediately west of the present quarry and proposed extension, and its route appears, at least in part, to be represented by the current north-south trackway, which is utilised by vehicles. A number of granite setts and fragments of rail are visible in the trackway west and north of the quarry, and it is possible that these, and other components, continue below the present ground surface in this area and elsewhere along its route. The tramway is an important feature in the landscape and surviving elements should be preserved. However, the section of trackway west and north of the quarry where the tramway features are evident, will not be used to access the proposed extension area. The existing quarry entrance will continue to be used. Therefore, no mitigation measures are suggested for the trackway west and north of the quarry.

Field system - Elongated linear features that may indicate the presence of former medieval or post-medieval field systems were identified on modern aerial photographs over a wide area of Yennadon Down, including areas to the south-east, east and north-east of Yennadon Quarry.

However, no above-ground features associated with the field system were identified within the subject site (quarry extension area). Although there is no evidence of field systems in the new quarry working area, as a precautionary measure a 'watching brief' will be undertaken to mitigate any impacts from the proposed development should unidentified features exist in the extension area. The watching brief would comprise a geophysical survey following the clearance of vegetation and, if deemed necessary, site attendance during soil stripping by a qualified archaeologist.

There is also the potential for unidentified historic sites, the impact of which would also be mitigated by the watching brief and geophysical survey following the clearance of vegetation.

### Process Pollution

An assessment of the quarry processes at Yennadon Quarry has been made, with consideration given to controlling air emissions and other potential sources of pollution associated with the quarry process. Over the past seven years the quarry has produced on average approximately 5,500 tonnes per annum (t/a). A maximum potential future production level of 10,000t/a has been proposed, a reduction from 14,000t/a stipulated in the current planning conditions. The assessment included the production of a site conceptual model, which describes the potential pollutants associated with the quarry process, and potential impacts based on a maximum potential output of 10,000t/a.

Yennadon Stone operates a "Hard Rock" quarry that produces dimension stone for natural stone building material and walling purposes. The quarrying operation maximises the material suitable for sale, with approximately 40% of the stone excavated being non-saleable spoil. Yennadon Quarry uses low technology extraction and processing methods. It does not employ 'prescribed'<sup>1</sup> quarry processes that necessitate Local Air Pollution Control (LAPC) or Local Air Pollution Prevention and Control (LAPPC) permits.

The proposals will not result in any change in production methods. The existing operating hours are to be continued. The location of the site offices and processing areas are to be kept as existing. There will be no increase in the number of either static or mobile plant or vehicles, or their operating hours. Therefore, there will be no scheduled increase in emissions from plant, with the exception of the dumper trucks, which will have a slight increase in movements; i.e. further distance to travel between working faces and processing area. The potential increase in exhaust emissions is considered to be minor.

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<sup>1</sup> Prescribed quarry processes include drilling and blasting techniques, mechanical crushing and screening plant and transportation of stone using conveyor belts and chutes.

The assessment indicated dust emissions and noise pollution as having potentially significant impacts and have been assessed individually. Other potential pollutants are all considered to pose minor or insignificant impacts.

Yennadon Quarry has an Environmental Management Strategy (EMS), which ensures environmental impacts are managed. The EMS will continue to be adhered to and will be regularly reviewed. The implementation of the EMS will provide sufficient mitigation of the potential impacts of process pollution. These impacts would cease upon reinstatement of the site to moorland. No permanent residual effects are anticipated.

### **Emissions**

An assessment of dust emissions from Yennadon Quarry was carried out with emphasis on the impact of nuisance dust generated by the quarry. The assessment quantified the level of dust being generated by the existing operations across the environs and assessed the impact of the quarry extension on dust generation. The prevailing wind<sup>1</sup> direction is from the south-west. However, the local topography (the quarry lies on the western flank of Yennadon Down) will affect the low-level winds, which will direct the winds to the north. Local residents most likely to be affected by nuisance dust would be located to the north of the quarry.

In production terms, the extraction, processing and transport processes that have the potential to generate dust are to remain identical to the existing operation. The only variations would be the requirement to remove / strip topsoil and overburden, the construction of a new bund; and a slight increase in the length of the haulage road from the quarry face to the material processing area.

The data for the dust assessment of existing conditions was obtained from a dust monitoring survey, which enabled a semi-quantitative measurement of depositional rates to be established. Meteorological data was obtained to enable interpretation of the dust data. During the four week dust monitoring period, prevailing south-westerly winds were dominant. Typically wind speeds ranged from a light to a gentle breeze (1 to 9 knots). Rainfall fell on 15 days out of the 28 days of the dust monitoring period, with more than 1mm of rainfall falling on 13 days. Levels of daily rainfall greater than 1mm acts to suppress dust. Therefore, the levels of rainfall received during the four week dust monitoring programme had an impact on measured dust levels.

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<sup>1</sup> Prevailing wind is defined as the direction wind blows from with the highest percent of frequency. In the UK, prevailing winds normally blow from the South-West (approximately from 245 degrees).

All of the dust monitoring results fell into the 'very low potential impact' category. The highest recorded Effective Area Coverage (EAC)/day value of 0.3% is regarded as being 'noticeable', but is below the 0.5% EAC/day level that typically gives rise to a 'possible complaint'.

The off-site 'control' dust monitors identified that there are several sources of dust being generated in the surrounding area. The directional dust gauges gave no strong indication that dust from Yennadon Quarry predominates. The off-site control to the west of Dousland measured the highest levels of dust from the southwest, west and northwest (i.e. not from Yennadon Quarry). Levels adjacent and down-wind of the quarry were not significantly elevated above the control monitors and typical background levels expected within a rural area within summer months. The baseline conditions at the site indicate that levels of dust currently generated at the site are within 'Acceptable Levels'.

It is considered that should the quarry operate at the proposed full capacity of 10,000t/a compared to the current average of approximately 5,500t/a, the level of nuisance dust generated from the quarry are likely to be below the threshold that could give 'possible complaint'. Therefore, the risk of nuisance dust affecting the residents is considered to be low.

It is considered that wind-whipped dust could potentially be generated from uncovered/ un-vegetated spoil heaps/bunds and from the compacted stone access track. However, it is considered that levels of nuisance dust are unlikely to exceed a significance level of low to medium.

In April 2015, Yennadon Quarry formalised their dust management arrangements into a Dust Management Plan, which includes the comprehensive dust suppression arrangements.

The on-going quarrying activities at Yennadon Quarry will inevitably give rise to some dust emissions although the potential impact at the nearest residential properties is not considered to be of any significance (assuming normal conditions and wind distribution patterns). Implementation of mitigation measures and Dust Management Plan will ensure that there will be no significant residual effects of the proposed quarry extension on local residents from dust emissions.

### **Surface Water Management**

An assessment of existing and proposed surface water management at the quarry has been made, as well as an assessment of drainage paths within the catchment area. The existing quarry operation manages surface water within the site by collection in an infiltration pond in the quarry

base. Some of the water is recycled (through a 'silt-buster'). The remaining water in the pond drains through the underlying strata, supplemented by pumped discharge to a soakaway. This arrangement utilises SuDS techniques and based on performance to date, is considered to be an adequate and appropriate arrangement and will continue to be used for the extension of the quarry. There will be no increase in the area of impermeable surfaces resulting from the quarry extension. The proposed phasing of quarrying and reinstatement seeks to minimise the impact of the development on the local drainage regime.

There are no natural surface water bodies within the existing quarry or the subject site and both areas are located outside of any floodplain. Future quarry workings are expected to be above the water table hence the site will not be susceptible to groundwater flooding.

An assessment was made of watershed (catchment area) and drainage paths around the site. It is evident that surface water run-off directly to the east of the quarry drains into the quarry. Within the quarry, drainage is shown to be directed to the base of the quarry. No drainage paths are shown discharging from the quarry entrance. Rainfall onto the bund would be expected to drain freely through the granular material. Therefore, no significant surface water run-off is derived from the existing quarry itself. The modelling did indicate that across Yennadon Down, there are numerous flow paths leading from the Down to the access road and then from the access road down slope. It is recommended that an investigation should be carried out to the camber of the access road and the requirements for any drainage at its southern end close to Iron Mine Lane. Any drainage improvement scheme would need to be designed as not to impact on any potential archaeological remains of the tramway underlying the access road. The scheme would need to be submitted to the local authority for approval prior to any works commencing. Yennadon Stone Ltd have indicated that they will undertake the investigatory works and approved improvement works as part of their track maintenance requirements.

It is concluded that, with mitigation, the proposed development will have no permanent or significant impacts upon local drainage. There will be no impacts upon surface water bodies. The potential impacts of development of flood risk and surface erosion can be fully mitigated through good management practices. No permanent residual effects are anticipated.

### **Geology and Hydrogeology**

An assessment of the geology and hydrogeology present on and beneath the site has been made. The assessment did not identify any features of recorded geological importance present on the site. No potential contaminants were identified that will affect soil quality in the area of the proposed extension. The proposals will require disturbance of the existing site soils, for use in

bunds and site restoration; and adoption of proper soil handling procedures is proposed to maintain soil quality.

The existing quarry workings are not sub-water table and it is unlikely that sub-water table quarrying will take place within the extended quarry. The hydrogeology assessment concluded that groundwater flow is towards the west, i.e. would migrate away from the identified groundwater Source Protection Zones (to the east of the site). It also concluded that the proposed extension will not result in any increase of groundwater recharge and will have a negligible effect on stream base flow to surface water courses to the west of the site including the disused section of the Devonport Leat to the west of the site.

### Noise

An assessment has been made to quantify the level of existing environmental noise across the environs as existing and consideration made as to the likely impact of the quarry extension and any appropriate mitigation measures. A detailed noise survey was carried out of existing quarry activity noise at the nearest neighbour, Higher Yennadon, some 142m from the northern edge of the existing quarry. Noise levels were also monitored 90m from the edge of the quarry, which would effectively be the conservative distance from the extended quarry to Higher Yennadon. The survey has shown that noise levels are typically higher at Higher Yennadon than they are at the closer "90m position" and this suggests that quarry activity noise does not control the noise climate at the neighbours.

The seven day noise survey indicated that the MPS2 55 decibels (dB)  $L_{Aeq}$  criterion (2005 guidance on noise and mineral extract in Annex 2 of Mineral Policy Statement, MPS2) can be complied without mitigation. However, the noise survey results over the weekend, when the quarry was shut, does show that ambient noise levels can fall below 40 dB  $L_{Aeq}$ . Therefore, a limit of 10 dB greater than ambient levels, of 50 dB  $L_{Aeq}$  would give a more appropriate limit for the site.

Typical working day noise levels at the "90m position" fell in the range of 45-50 dB  $L_{Aeq}$  and is considered to be indicative of the likely noise level at Higher Yennadon if the quarry was to be extended 90m to the north. The highest hourly level was 51 dB  $L_{Aeq}$ , 1hr, which was recorded whilst a 360° slew (excavator) worked on top of the spoil mound, to the northwest of the quarry, in direct sight of the measurement positions. The construction of the 4m high bund along the western side of the proposed quarry extension prior to any excavation works will help protect the amenity of the nearest neighbour, as well as to visually screen all quarry workings. The new bund would increase screening losses by at least 5 dB and therefore it would not be unduly constrictive to consider the imposition of a noise condition of 50 dB  $L_{Aeq}$  (free field) at the nearest neighbouring

property. It is considered that noise from the extended quarry could be controlled to no more than 50 dB LAeq.

The potential impact of noise on visitors to the National Park was also evaluated; i.e. impact of noise on the tranquillity of Yennadon Down. When evaluating tranquillity, a number of factors (both positive and negative) need to be considered. Noise is in fact a small part of overall tranquillity. In the previous submission, the DNPA's case officer stated "The quarry working will be at a similar level to the existing operation and noise levels will be at the same level which means its impact on tranquillity will be no worse"; i.e. the impact of noise on tranquillity will be neutral. However, as tranquillity takes into account visual aspects of the landscape, the revised proposed working and restoration scheme (which will result in an immediate rolling restoration programme) is considered to be relevant in assessing the impact of the proposals on overall tranquillity. The proposed restoration provides positive tranquillity factors including improving "the naturalness of the landscape" and "openness of landscape". Considering predicted noise levels from the quarry are acknowledged to remain as existing and the revised proposed working and restoration scheme will reduce visual impacts (over existing) and provide long-term landscape improvements, the proposals can be considered as enhancing levels of tranquillity. Considering the quarry is in an area defined by the National Park as an "Area of Heavy Recreation Use", sensitivity to change can be considered to be already relatively low.

## Transport

An assessment has been made of the existing traffic conditions and characteristics of the area and the potential impacts of the proposed quarry extension. In transport terms, the operation method, employee numbers and delivery route for the proposals remains identical to the existing operation. Therefore, it is proposed that the existing traffic management arrangements will continue to be operated as existing.

The key findings of the Transport Statement are:

- The quarry currently accounts for approximately 20 HGV lorries per week on Burrator Road (0.62% of day time traffic). Increasing HGV trips to 30 per week represents an increase of 0.3%. Therefore, the impact of vehicle trips associated with the proposed quarry extension on the existing highway network users is expected to be negligible;
- The existing quarry access is expected to continue to operate efficiently and safely;
- The accident history does not raise any significant accident concerns and the proposed quarry extension is not expected to increase accident rates on the highway;
- The existing arrangements are expected to remain effective in minimising debris being tracked onto the highway.

It is anticipated that there will be only temporary insignificant to negligible impacts on the local transport network during the operation of the quarry extension. These impacts would cease upon final restoration and closure of the site. No permanent residual effects are anticipated. Recommended mitigation measures to limit the potential impacts of the quarry extension include:

- Continue vehicle maintenance plan for HGV.
- Monitor the amount of mud in compound area and staff / visitor car park; carryout cleaning / maintenance if excessive mud accumulates.
- Maintain access routes to the quarry to ensure the access track effectively removes mud from HGV tyres.

The implementation of the mitigation measures described above will ensure that there will be no significant residual effects of the development upon the existing local highway network.

### **Ecological Habitat and Biodiversity**

An assessment of the current ecological conditions of the site has been made in respect of important and legally protected sites, habitats and species. The ecological assessment has included an extended Phase 1 habitat survey, followed by specific surveys for badgers, breeding birds, bats, butterflies and reptiles. A botanical survey was also undertaken. Two Verification Surveys have also been undertaken to verify that ecological conditions have not varied since 2010 when the first survey was undertaken and to confirm that findings and recommendations remain applicable.

Yennadon Quarry and the quarry extension are not within any statutory or non-statutory sites of nature conservation interest. No impacts on sites specifically designated for nature conservation are anticipated.

The extension of the existing quarry will result in adverse impacts to unimproved acid grassland, small numbers of scattered hawthorn trees, common lizard, nesting habitat for up to five bird species and habitat for butterflies including the small heath butterfly. However, measures to avoid, mitigate and compensate these adverse impacts have been developed and detailed in a site-specific Biodiversity Mitigation and Enhancement Plan. Such measures include undertaking a translocation of reptile species, sensitive seasonal timing of vegetation clearance and appropriate planting and seeding of the proposed earth bund and the phased restoration areas with species-rich locally sourced seed. Detailed proposals for the following will be submitted for approval prior to development and restoration:

1. Grassland habitat creation and management statement (including species mixes, management regimes and habitat provision for ground nesting birds);



2. Pond Creation and Management Statement (including provision for fairy shrimp); and
3. Post quarry restoration habitat and species management plan.

These measures to mitigate for anticipated adverse impacts have resulted in residual impacts on habitats and species being negligible, neutral or in some cases beneficial. In the long-term, spoil piles will be restored for the benefit of ecology and nature conservation.

### **Landscape and Visual Impact**

An assessment has been made of the current baseline situation and the likely landscape and visual impacts of the revised proposals both during and after operation of the proposed extension, and then approximately 10-15 years later when the mitigation measures will be fully established. The potential impacts of the revised proposals are also assessed against the impacts that will occur as a result of the existing planning permission. Representative viewpoints have been selected that illustrate the existing character and condition of the landscape around the application site, the visibility of the existing quarry and the contribution that it makes to local character.

Key conclusions of the baseline assessment were:

- Yennadon Quarry has been in existence for at least 150 years and pre-dates the settlement of Dousland. It is one of the historic features that contributes to local character or 'sense of place';
- Quarries are an important and often highly visible part of the Dartmoor landscape. They form focal points and places of historic interest and can contribute positively to the special qualities of the National Park;
- The area surrounding the quarry is not part of the remote upland moorland that contribute strongly to the 'iconic' vision of Dartmoor, and the area does not exhibit the key properties or remoteness or high tranquillity;
- The 'upland fringe' adjacent to the site is characterised by naturally re-generating small trees. These provide opportunities to assimilate the site into the local landscape that do not exist at more elevated locations. The lower, less exposed parts of Yennadon Down to the north and south of the existing quarry are being gradually colonised by areas of naturally re-generating small trees and bracken. These form part of the on-going pattern of landscape change in the area, and will progressively screen views towards the site from the western edge of the Down;
- From viewpoints around Dousland, views into the working area of the quarry are screened by the existing spoil bund, but the un-vegetated part of the bund itself is a rather alien and intrusive feature;

- Yennadon Down consists of a mosaic of unimproved acid grassland, bracken and scattered gorse scrub and trees. This vegetation tends to be maintained at a very short sward height by the grazing of livestock, including sheep, ponies and cattle. Between the clumps of vegetation there is a network of grassland and well used footpaths. This including one that runs around the upper eastern edge of the quarry, providing views into the existing working area;
- The remains of the disused Yennadon Iron Mine to the south of the site are now well integrated into landscape by areas of typical moorland vegetation. Although evidence of past mining activities can still be identified, the mine does not form an intrusive feature in the landscape. This shows how former mining features can be successfully assimilated into the landscape by the native moorland vegetation;
- Several small ponds are located on Yennadon Down. These tend to be surrounded by typical moorland vegetation that integrates them into the local landscape and enhances their bio-diversity;
- A combination of the mature vegetation around the property to the northwest and the dense woodland in Dousland Plantation predominantly screens more distant views towards the site from the north and northwest, limiting views to those available from Yennadon Down. In more distant views from the northwest, it is only the upper un-vegetated parts of the spoil bund and the rockfaces defining the south eastern corner of the existing quarry that are visible. While the site does not form a highly conspicuous part of these views, it is evident that the landform of the quarry would be even less apparent if the rockface was vegetated like the surrounding moorland;
- From Roborough Down the site is seen as part of the transition zone between the settled and more vegetated 'Moorland Edge Slopes' and the more elevated and exposed moorlands beyond. The vertical rock face defining the upper eastern edge of the site forms the most visually prominent and intrusive part of the existing quarry, but the un-vegetated part of the spoil bund is also visible; and
- From viewpoints to the southwest, the site does not contribute meaningfully to the character or composition of views, but the other disused quarry on the edge of Yennadon Down is clearly visible, demonstrating the typical contribution of quarries to local character.

The existing impacts and opportunities for enhancements that could be incorporated into the revised proposals were identified as follows:

- The well-established vegetation on the original spoil heap to the north of the site entrance screens views into the existing quarry and integrates the bund into the landscape. This area should be retained as part of the revised proposals;

- The un-vegetated northern part of the existing spoil mound forms a prominent and highly intrusive feature on the skyline in views from the trackway along the western boundary. The height and profile of this feature will remain unchanged under the existing permission. There are clearly opportunities to re-profile, topsoil and plant this feature during the initial phases of the revised proposals;
- There is a well-worn pathway around the upper (eastern) side of the existing site area that is regularly used by walkers keen to view operations within the quarry. This should be retained as part of the revised proposals;
- The scale and depth of the existing quarry is readily apparent from viewpoints around the existing working area. The vertical rock faces along the eastern side of the quarry form the most prominent features;
- While the quarry occupies its original historic location within the landscape, the modern extraction methods mean that the internal character of the site differs from the other disused quarries seen within the local area;
- Due to the distinctive fall in the landform from east to west, the proposed extension area is located in a markedly lower and less prominent part of the landscape than the top of the eastern rock face defining the edge of the existing working area;
- The existing working area is screened from most viewpoints on Yennadon Down by the landform and the surrounding vegetation, with the upper east-facing part of the western spoil bund being the principle intrusive feature that is visible. There are clearly opportunities to re-profile, topsoil and plant this feature during the initial phases of the revised proposals; and
- No public access will be possible under the existing permission as the upper parts of the quarry will remain as vertical rock faces and the boundary fences retained.

If planning permission for the revised proposals is not granted, Yennadon Stone will continue to operate under the terms of the Existing Permission, which expires in 2025. It is therefore assumed that excavation works will continue, albeit at a somewhat reduced capacity, until 2025. The anticipated impacts that will arise as a result of the existing Permission can be summarised as follows:

- The height and profile of the un-vegetated northern part of the existing spoil mound will remain and will be left to naturally re-vegetate, so this will remain as an alien landform in views towards the site from the west;
- The restoration plans will not be submitted until 2023, so restoration is unlikely to commence until at least 2024/2025;
- The top and east-facing slope of the existing spoil bund is the main feature that is visible from local viewpoints on Yennadon Down. This will remain in its existing position and will be left to naturally re-vegetate at the end of the operational period under the existing permission;

- The upper parts of the eastern rock face are the most visually intrusive elements of the existing quarry. These will remain as prominent near-vertical rock faces as there is insufficient fill available to re-profile them to safe gradients that will allow them to be physically or visually integrated back into the surrounding landscape; and
- Currently there are no common land rights or public access rights to the existing quarry. The Trustees of the Walkhampton Trust have indicated that this will remain the case should planning permission be refused. The quarry will therefore remain fenced off, primarily due to health and safety concerns associated with the remaining vertical quarry faces.

The Landscape Restoration Plan demonstrates how the revised landscape strategy would successfully assimilate the proposals back into the local landscape. The plan shows how the areas of new vegetation on the restored landform could be managed to integrate with the existing vegetation pattern around the site, providing linkages with the existing informal pathway across Yennadon Down.

Topography: The key impacts on the topography of the site will relate to the profile and gradient of the landform, and the contribution that this makes to local landscape character. The profile of the existing quarry is clearly at odds with the surrounding landform, despite the fact that quarries are identified as one of the typical characteristics of the local landscape. The revised proposals would restore a substantial part of the quarry to a near-natural ground profile. It is evident therefore that the restoration plans respond to the typical and 'valued attributes' of the local landscape (as is required by Policy DMD5) and would result in a clearly noticeable betterment compared to the situation that would arise under the existing permission. With a high sensitivity and a moderate magnitude of change, it is concluded that the revised proposals would result in a significant benefit to the landform within the site.

Vegetation / Ecological Considerations: The site-specific Biodiversity Mitigation and Enhancement Plan (detailed in the Ecological Habitat and Biodiversity assessment) provide measures to avoid, mitigate and compensate ecological impacts. Taking the quarry as a whole and comparing the impacts to those that will occur as a result of the existing permission, there will be a clearly noticeable benefit. This would result in a moderately significant benefit across the wider site area.

Public Rights of Way: There are currently no common land rights or public access rights to the existing quarry area and the Maristow Estate have indicated that this will remain the case under the existing planning permission. As a result, the quarry will remain fenced off. Under the new proposals (and subject to necessary negotiations between the Maristow Estate and DNPA) there

is the potential for public access to the restored quarry, which would promote opportunities for the enjoyment of the enhanced biodiversity and special landscape features within the quarry by the public. Access is therefore regarded as a high or very highly sensitive landscape attribute. With the potential for new public access providing opportunities for a clearly noticeable benefit, the proposals have the capacity to result in a significant benefit compared to the existing permission.

Watercourses and Drainage: The Surface Water Management Assessment anticipates that there will be temporary insignificant impacts on the local drainage and groundwater regime during the operation of the extension, with no permanent residual effects anticipated. The pond to be retained in the base of the quarry will provide opportunities for longer term bio-diversity enhancements.

Archaeology and Cultural Heritage: With the exception of the site of the tramway and siding no features of archaeological or historical interest have been identified within the quarry itself and no cultural heritage mitigation measures are suggested. In order to "promote the understanding and enjoyment of the special qualities of the National Park" it is proposed that an information board will be erected close to the entrance of the quarry describing the link between the Tramway, Yennadon Quarry and the history of quarrying on Dartmoor. This will provide a benefit compared to the provisions of the existing permission, in accordance with the primary objectives of the National Park.

Visual Impacts: The Visual Appraisal has demonstrated that from every viewpoint that was assessed the revised proposals would result in benefits compared to the existing permission. It is logical to conclude therefore that this must mean that the proposals would 'conserve and enhance' the natural beauty of the local landscape when the impacts are judged against the baseline conditions.

Residential Amenity: This relates to the on-going 'live-ability' of a property, and the avoidance of potentially 'unneighbourly' developments. It is acknowledged that there will be a short period during the initial site set-up stage when there will be a slight increase in impacts on the properties with views towards the site. However, this eight week period represents approximately 1.5% of the total length of the existing permission and is therefore a short-term impact that is not considered to be significant. After this time, impacts will return to their existing level, and the re-profiling and planting of the un-vegetated part of the spoil bund will gradually become evident. It is concluded that there will not be any unacceptable impacts on the residential amenity of the private properties.

It is concluded that the proposals would not have a detrimental residual impact on the character of the area, and by restoring part of the site to a near natural grade and retaining the presence of the quarry, the proposals will enhance what is special or locally distinctive about the local landscape character. Furthermore, rather than harm the wider landscape, the progressive restoration will provide clear betterment compared to the existing permission, so the revised proposals will enhance local landscape for the following reasons:

- They would restore a greater area to moorland than would be temporarily required for the extension area;
- They would facilitate the earlier restoration of the most visible and intrusive parts of the existing quarry (the un-vegetated parts of the existing bund and the upper south eastern and eastern faces of the existing quarry);
- They would provide a clear improvement to the final restored landscape of areas with the greater visual impact (the south-eastern and eastern faces will be infilled to near-natural profiles, unlike the existing permission);
- They would provide opportunities for increased bio-diversity and habitat creation within the site;
- The information board to be erected close to the entrance of the quarry will describe the link between the Tramway, Yennadon Quarry and the history of quarrying on Dartmoor, in accordance with the primary objectives of the National Park;
- They would result in an improvement to the visual impacts from every viewpoints considered by the assessment; and
- The suitably restored and accessible quarry could provide future opportunities for the enjoyment of the biodiversity and special landscape features of the restored quarry by the public.

Consequently, no significant adverse impacts would arise as a result of the revised proposals, and the progressive restoration scheme would result in clear benefits compared to the existing permission. This would 'conserve and enhance' the natural beauty of the landscape in accordance with the primary purposes of designating land within National Parks. It is concluded therefore that the proposals would be fully compatible with the relevant planning policies and that there are no landscape or visual reasons why planning permission should not be granted.

### **Cumulative Impacts**

To ensure a consistent approach with regard to assessing the impact of the proposals and identifying the inter-relationships between effects, a review of the ES was undertaken, which resulted in the production of the table below, summarising the assessment of potential impacts and their mitigation.

	Geographical	Nature	Duration	Significance	Mitigation
<b>Effect on human beings, buildings and man-made features</b>					
Economy and employment	Local Regional	Beneficial	Long-term	Major Minor	N/A
Do-nothing effect on economy and unemployment	Local Regional	Adverse	Long-term	Major Minor	N/A
Traffic - Volume change associated with proposed extension	Local	N/S	Medium / Long-term	Minor	Maintain traffic management arrangements
Traffic - effects of the development on local roads and transport.	Local	N/S	Long-term	Insignificant	Maintain traffic management arrangements
Site Security	Local	Neutral	Long-term	Insignificant	Extend existing security measures around new perimeter
Loss of Common Land	Local	Adverse	Long-term	Minor	Undertake flailing / swiping to restore grazing elsewhere on Common
Impact of nuisance dust affecting Local Residents	Local	Adverse	Long-term	Insignificant	Maintain existing dust suppression arrangements; implement additional measures
Levels of other emissions from quarry processes during normal operation (exhaust fumes, light, etc.)	Local	N/S	Long-term	Insignificant	Maintain Environmental Management Strategy (EMS)
Noise - levels and effects of noise	Local	Adverse	Long-term	Minor	Construct bund on western boundary; Adopt Good Practice for Noise Reduction
Change in population arising from proposals and consequential environmental effects	Local	None	N/A	N/A	N/A
Effects on buildings, the architectural and historic heritage and other human artefacts (through pollutants, visual intrusion, vibration)	Local	N/S	Long-term	Insignificant	N/A
Effects on new-builds (continued supply of natural building stone as encouraged in planning policies to maintain the aesthetic appearance)	Local / Regional	Beneficial	Long-term	Moderate	N/A
<b>Effects on Landscape and Visual Impacts</b>					
Public Rights of Way	Local	Benefit	Subject to Agreement	Major	Any future access would be subject to agreement between landowners & DNPA
Water features	Local	Benefit	Permanent	Insignificant	Creation of pond & seasonal wetland.
Archaeology and Cultural Heritage	Site	Benefit	Permanent	Insignificant	Information board: history of Tramway, Yennadon Quarry and quarrying on Dartmoor.

Topography	Local / Site	Benefit	Permanent	Moderate	Mitigation measures form an integral and fundamental part of proposals, as progressive restoration of the existing quarry will be carried out as the works in the extension area are undertaken
Vegetation	Local / Site	Benefit	Permanent	Moderate	
Tranquillity	Local	Benefit	Permanent	Moderate	
Local Views	Local	Benefit	Permanent	Moderate	
Distant Views	District / Local	Benefit	Permanent	Minor	
Local Landscape character	Local / Site	Benefit	Permanent	Major	
Wider Landscape Character	District / Local	Benefit	Permanent	Minor	
Effects on archaeology					
Site 1 - Yennadon Quarry	Local	Adverse	Permanent	Minor	N/A
Site 2 - Dartmoor Tramway	Regional	Adverse	Permanent	Minor / Moderate	N/A
Site 3 - Field system	Local / Regional	Adverse	Permanent	Minor / Moderate	Watching brief
Potential unidentified sites	Unknown	Adverse	Permanent	Unknown	Watching brief
Effects on flora, fauna and geology					
Statutory sites	National	None	N/A	N/A	N/A
Non-statutory sites	County	None	N/A	N/A	N/A
Unimproved acid grassland, bracken and scrub mosaic	Local	Adverse	Long-term	Moderate	Implement a site-specific biodiversity mitigation and enhancement plan
Scattered hawthorn trees	Local / Site	Adverse	Long-term	Moderate	
Quarry	Local / Site	Neutral	Long-term	Insignificant	
Badgers	Local	Negligible	Long-term	Insignificant	
Bat species	Local	Negligible	Long-term	Insignificant	
Bird species	Local / Site	Adverse	Long-term	Moderate	
Butterfly species	Local / Site	Adverse	Long-term	Moderate	
Reptile species	Local / Site	Adverse	Long-term	Moderate	
Overall loss of, or damage to habitats/plants/animal species	Local / Site	Adverse	Long-term	Minor	
Geology - Loss of, and damage to, geological, paleontological and physiographic features	Local	N/S	Permanent	Insignificant	
Other ecological consequences	N/S	N/S	N/S	N/S	N/A
Effects on land					
Physical effects of the development (e.g. change in local topography, effect on earth-moving on stability, soil erosion, etc.)	Local	Adverse	Long-term	Minor	Adopt MAFF guidelines: proper soil handling; Implement phased restoration plan
Soil quality	Local	Neutral	Long-term	Minor	Adopt MAFF guidelines on proper soil handling
Contamination risk from quarry process (hydrocarbon spill)	Local	Adverse	Long-term	Minor	Maintain EMS
Land use/resource effects: • alternative uses of the site (inc. 'do nothing approach') • on surrounding land uses	Local	Neutral	Permanent	Moderate	N/A
Effects on water					
Hydrogeology - changes to characteristics e.g. ground water level and flow	Local	N/S	Permanent	Insignificant	Maintain EMS
Effect on water quality - Impact on groundwater SPZs	Local	N/S	Permanent	Insignificant	



Impact on Devonport Leat	Local	Neutral	Permanent	Insignificant	Maintain existing surface water management arrangements and implement additional measures
Local Drainage Regime	Local	N/S	Long	Insignificant	
Surface Water Bodies	Local	N/A	N/A	N/A	
Flood Risk at Site	Local	N/S	Long-term	Minor	
Flood Risk Downstream	Local	Neutral	Long-term	Insignificant	
Surface Erosion from run-off during soil stripping, etc.	Local	Adverse	Short	Minor	Adopt MAFF guidelines on proper soil handling
<b>Effects on air and climate from quarry process</b>					
Exhaust Fumes	Local Regional	Adverse N/S	Long-term	Minor Insignificant	Maintain EMS
Dust (particulate matter)	Local	Adverse	Long-term	Insignificant	Maintain existing dust management plan & implement additional measures
Overall level and concentration of emissions from quarry and their environmental effects	District/Local	Adverse	Long-term	Minor	Maintain existing EMS measures and implement additional measures
<b>Other indirect and secondary effects</b>					
Secondary effects from the interaction of separate direct effects, as above	N/S	N/S	N/S	N/S	N/A

N/S – Not significant; N/A – Not applicable

### Combined Assessment of Impact and Effects

### Overall Summary and Conclusions

In accordance with the Scoping Opinion adopted by Dartmoor National Park Authority, a full Environmental Impact Assessment of the proposed extension to Yennadon Quarry, Dousland, has been undertaken in terms of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

The development proposals are for the extension to the working plan area of the quarry and phased restoration scheme. The proposed extension area is located to the immediate north of the existing Yennadon Quarry.

The ES comprises a number of general and environmental topics that, overall, cover the areas of enquiry specified in the Scoping Opinion. The need issues of relevant planning policies have also been addressed in the ES.

Where impacts have been identified, they have been assessed for geographical effects, nature (adverse, beneficial, etc.), duration of effect and significance. Where impacts are assessed as “adverse” and other than “not significant”, mitigation measures have been identified that can reduce or remove the impact on the environment.

The ES has established that with the exception of economic impacts, there are no major impacts that may give rise to issues that would affect the planning decision making process. The significance of the economic impacts is considered to be major. Given the limited opportunity in the locality for skilled quarrying jobs the loss of 27 jobs at Yennadon Quarry will have ramifications on the local economy through the loss of the economic activity of those employees. It is considered that the loss of this quarry would have a substantial negative economic impact on the region.

In addition to economic benefits, the revised restoration scheme provides a clear improvement to the final restored landscape of areas with the greater visual impact (the south-eastern and eastern faces will be infilled to near-natural profiles), unlike under the existing permission. The proposed restoration scheme would result in an improvement to the visual impacts from every viewpoint considered by the assessment.

The 'Revised Development Proposals, Restoration and Aftercare Plan' identifies that the rolling restoration programme within the existing quarry, which will begin as soon as permission is granted, will restore approximately 7,040m<sup>2</sup> of land to moorland. This area is approximately a third larger than the extent of the new extraction area. This restoration will take place progressively throughout the operational period, and will start at least 8-10 years before any restoration will occur under the existing permission. On completion of quarrying operations, it is planned to finalise landscaping and restoration, creating opportunities for increased bio-diversity and habitat creation within the site. It is evident therefore that the proposals will 'conserve and enhance' the landscape in accordance with the policies and strategic objectives of the National Park.

The positive economic benefits and improved restoration scheme, represented by the proposal to extend the quarry, far outweigh other impacts as it is possible to mitigate against a number of the negative aspects of the application.

During the previous submission, the main elements of the reasons for refusal were:

1. Failure of the Environmental statement to assess the likely impacts of the development at the proposed upper limits of 10,000 tonnes per annum.
2. The proposed extension would perpetuate the quarry and the related impacts in the long term until 2025. The development is major and there is no overriding need for the development.
3. Acceptable alternative sources of stone exist to meet the demand currently met by the quarry. The alternative option for the quarry itself would be its restoration on exhaustion of the

permitted reserves, thus reducing the current landscape impact, and enhancing the landscape.

4. The proposed development would have an unacceptable impact on the special qualities of the National Park, particularly in terms of amenity use, landscape and tranquillity.

These reasons for refusal contain a number of elements which Yennadon Stone and their advisors have sought to address or clarify.

This revised submission addresses these issues as follows:

Reason 1: In respect of the accuracy of the information contained in the previous ES it is acknowledged that there was a degree of confusion over the tonnage of quarrying proposed per annum. All of the figures contained with the ES were within the existing permitted extraction rate of 14,000 tonnes per annum. This ES has been revised based on a uniform figure of 10,000 tonnes/annum in each appropriate section. A recalculation of the extraction area required to deliver at this reduced maximum rate until 2025 results in a smaller quarry area which, beneficially, within the proposed application area allows a significantly enhanced landscape strategy.

Reason 2: It was an incorrect assumption on the part of the DNPA that in the absence of a further planning permission the quarry would close before 2025 (The time limit of the existing planning permission.) Without the grant of a further planning permission the quarry will continue to operate albeit with a reduced output and with reducing levels of staff arising from the physical constraints of working within such a tight area.

It was determined by the DNPA that this was a major application arising from a definition within the Development Management Procedure Order (DMPO) which does not apply to the definitions contained with Core strategy Policy 22, the key policy against which the application needs to be tested. Therefore notwithstanding other reasons for refusal the incorrect starting position in assessing the application arose because of the generalised definition contained in the DMPO.

With regard to the matter of need, Policy COR22 applies this criterion to major mineral development and it is not contained in the elements of the policy dealing with "small scale quarry of traditional building stone" or "other mineral development". Notwithstanding the policy definitions, significant weight was given to the assertions of Lantoom Quarry without the provision of substantiation. Further work undertaken by advisors to Yennadon Stone demonstrates that the Lantoom stone is of a lesser quality in a number of respects including: colour, strength, weathering, water resistance, shape and appropriateness to the character of the area. In this latter respect it is also worth noting that the use of Lantoom Stone would be alien to many of the

sites identified in the DNPA SHLAA and also the recommendations of the DNPA Design Guide on the importance of using local metamorphic stone in construction projects in the "moorland fringe" areas. A further area of concern arises from the assertion that Lantoom Quarry could readily take up the production that would be lost at Yennadon. This assertion was untested and detailed evidence now provided within the ES demonstrates that this is unlikely.

Reasons 3 and 4: The question of the availability of alternative acceptable sources of stone is addressed above. With regard to the significant landscape issues identified in these two reasons Yennadon Stone sought the advice of new landscape consultants and a revised extraction and restoration scheme was established, which enhances the visual impact of the landscaping at the same time as reducing the impact of the working faces. The landscape assessment also sets out the betterment arising from the restoration proposals. This will ultimately deliver a greater restored area of moorland, increased biodiversity and the potential for public access over the whole restored quarry area.

The existing permission contains no restoration details only a condition that these are submitted two years prior to the closure of the quarry. The landscape assessment indicates that it is an incorrect assumption that this approach would result in a significantly lower level of impact over that arising from the proposed extension.

In summary, Yennadon is a historic quarry in the Dartmoor National Park and has provided stone for many of the local communities for over 150 years. It is the only remaining operational quarry supplying local slate dimension stone within the boundary of the National Park and represents an important part of Dartmoor's cultural heritage. The proposed extension scheme provides a solution that will sustain the requirement for the stone, which will be extracted in a manner in which areas previously worked, can be progressively restored.

## GLOSSARY

Adopted Local Plan	A Local Plan that has been through all the stages of preparation and has been formally approved by the Local Planning Authority.
Adoption	The final confirmation of a plan as a statutory document by the local planning authority.
Allocations	Land or units (residential, industrial etc.) selected for development in local or informal plans, but as yet without planning permission.
Aquifer	A permeable geological formation which is capable of storing and yielding water.
Backfilling	Placement of material into work-out land in order to recreate a usable land surface.
Biodiversity	The variety of all living things (i.e. biological diversity) embracing species, wildlife habitats and ecological processes.
Brownfield	Land that has been previously built upon e.g. former industrial land, derelict buildings and vacant lots. Some brownfield land may have temporary uses on it such as car parks.
Bund	An extended mound of soils, overburden or structure erected as a barrier to sight, sound or water.
Climate Change	The major shifts in climate that are currently taking place. In particular there is a long-term rise in temperature (at least in part caused by the production of greenhouse gases) which is causing rising sea level, more extreme weather and other changes in weather patterns.
Consultation	Procedures for assessing public opinion about a plan or major development proposal, or in the case of a planning application, the means of obtaining the views of affected neighbours or others with an interest in the proposal.
Decibels (dB)	Unit of measurement of sound.
Density	In the case of residential development, a measurement of either the number of habitable rooms per hectare or the number of dwellings per hectare.
Developer Contributions	See Planning Obligations
Development	The carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land.
Development Plan	Documents prepared by local authorities and National Park authorities setting out the authority's policies and proposals for the development and use of land within its area. In Devon it comprises the Devon Structure Plan and Local Plans (including district-wide local plans, minerals and waste local plans). These are replaced under new legislation (Planning and Compulsory Purchase Act) and will consist of Regional Spatial Strategies (RSS) and Development Plan Documents contained within a Local Development Framework (LDF).
Devon Structure Plan	A document prepared by the Strategic Planning Authorities of Devon consisting of policies and proposals and written justification accompanied by diagrams. It contains general policy and proposals illustrating the broad pattern of future land use in Devon. It also apportions development between all District and Unitary Authorities in Devon. The current Structure Plan adopted October 2004 will be saved for a period of 3 years until it is replaced by the Regional Spatial Strategy (RSS) prepared by the Regional Assembly.
Dimension Stone	A natural stone product that has been cut or fashioned to a particular size or shape.
Dust	Any solid matter emanating from mineral working, or from ancillary plant and vehicles, which is borne by the air. Dust particles can vary in size from 1 to 75 microns.

Economic Development	Development relating to the production of goods and services; often resulting in job creation.
Employment Uses	The use (and development) of land for office, research and development, industrial and storage and distribution activities as identified in the Use Classes Order of 1987.
Environmental Appraisal	The process of weighing all the policies in a development plan for their global, national and local implications.
Hectares	A metric unit of area, equal to 2.471 acres or 10,000 square metres.
Infrastructure	Includes services like education and health facilities as well as roads, water supply and sewers.
Integrated Transport	The integration of land-use and transportation planning to allow transport provision and the Strategy demand for travel to be planned and managed together, balancing the use of different modes of transport to encourage easy transfer between them and reduced reliance on the private car.
LAeq	Equivalent continuous sound level over a specified time period.
Landscape Policy Areas	A term used to encompass the principal landscape-related designations in Devon. These include National Parks and Areas of Outstanding Natural Beauty, which are designated by the Countryside Agency; Areas of Great Landscape Value and Coastal Preservation Areas, which are designated by Local Planning Authorities.
Local Development Framework	Under the Planning and Compulsory Purchase Act 2004, this will comprise of a portfolio of Framework (LDF) Local Development Documents that provide a framework for delivering the spatial planning strategy of the area.
Local Development Scheme	Under the Planning and Compulsory Purchase Act 2004, this will set out the programme for Scheme the preparation of the local development documents.
Local Distinctiveness	The positive features of a place and its communities which contribute to its special character and sense of place.
Local Nature Reserve	A site of nature conservation importance owned or managed by a local authority, (LNR) designated in agreement with English Nature.
Local Plan	Sets out the detailed policies and specific proposals for the development and use of land, on a site specific basis using an Ordnance Survey base map. These will be replaced under new legislation (Planning and Compulsory Purchase Act) by Development Plan Documents (DPD) contained within a Local Development Framework (LDF).
Material Consideration	A matter which should be taken into account in deciding on a planning application or on an appeal against a planning decision.
Mixed Use Development	Development that includes a mixture of more than one of the following within a building, on a site or within a particular area: housing, employment, leisure, shops and community facilities.
Mode of transport	A means of travel such as foot, cycle, bus, train, car etc.
National Planning Policy Guidance	Central Government guidance that set out the Government's policy on various planning issues such as housing, transport, employment, etc.
Nature Conservation	The preservation, management and enhancement of natural plant and animal communities, and occasionally modified vegetation, as representative samples of their kind.
Overburden	Rock and / or soil that is of no commercial value, overlying the valuable stone.
Plan Period	The period during which the policies and proposals within the Structure Plan will apply. The plan period of the Devon Structure Plan is 2001-2016.
Planning Gain	The principle of a developer agreeing to provide additional benefits or safeguards, often for the benefit of the community, usually in the form of related development supplied at the developer's expense.

Planning Obligations	Legal agreements between a planning authority and a developer, or offered unilaterally by a developer, ensuring that certain extra works related to a development are undertaken, usually under Section 106 of the Town and Country Planning Act 1990.
Public Open Space	Undeveloped land accessible to the local community that is used for a variety of sport, recreation and leisure purposes, including formal sports pitches, allotments, cemeteries and community woodlands.
Regional Planning Guidance	(RPG) Issued by the Government which aims to provide the framework for the Guidance preparation of local authority development plans in each of the English regions.
Regional Spatial Strategy	Under the Planning and Compulsory Purchase Act 2004, this will be prepared by the Regional Planning Body (i.e. the Regional Assembly). The regional spatial strategy will set out the policies in relation to the development and use of land in the region and will be approved by the First Secretary of State. (PPS 11 provides detailed guidance on the functioning of RSS)
Section 106 Agreement	A binding agreement between a council and a developer associated with a grant of planning permission and regarding matters linked to the proposed development.
Self-Sufficiency	The concept of meeting people's needs locally.
Structure Plan	This consists of a Written Statement accompanied by a key diagram (but not maps). This formulates the general policy and proposals illustrating the broad policy and pattern of future development. The Structure Plan for Devon is prepared jointly by Devon County Council, Plymouth City Council, Torbay Council and Dartmoor National Park Authority. These are replaced under new legislation (Planning and Compulsory Purchase Act 2004) and will consist of Regional Spatial Strategies (RSS).
Sustainable Development	Development which meets the needs of the present generation without harming the ability of future generations to meet their own needs. Social, environmental and economic needs must be fully integrated if sustainability is to be achieved.
Transport Assessment	A study which allows the travel and transport consequences of a proposal to be properly assessed against sustainability objectives. It is a requirement for major development proposals likely to generate a significant amount of travel, to be accompanied by such an assessment.
Transport Statement	A study which allows the travel and transport consequences of a proposal to be properly assessed against sustainability objectives. It is a requirement for development proposals that are likely to have only relatively small travel implications.
Utilities	Water supply, sewerage and sewage disposal, land drainage, gas and electricity supply, waste disposal and telecommunications.



