

# PENRHYN QUARRY

Proposed lateral extension to the working area

Volume 2C

## NON TECHNICAL SUMMARY

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# EIA Quality Mark

This Environmental Impact Assessment Report, and the Environmental Impact Assessment (EIA) carried out to identify the significant environmental effects of the proposed development, was undertaken in line with the EIA Quality Mark Commitments.

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## Introduction

### Overview

**This document comprises a Non Technical Summary ('NTS') and has been prepared by SLR Consulting Limited (SLR) on behalf of Breedon Trading Limited ('the applicant'). The NTS is part of a package of documents being submitted to Gwynedd Council, as the mineral planning authority ('MPA'), in support of a two planning applications relating to land at Penrhyn Quarry, near Bethesda.**

- 1 The first planning application seeks a small lateral extension to the working area of the quarry at its south-western corner. Land associated with the proposed extension lies wholly within the boundary of the current planning permission. The second planning application seeks to amend the provisions of the extant planning permission in so far as it relates to the duration of extraction operations.
- 2 These proposals have been amended from those previously consulted on between 11 December 2020 and 22 January 2021 as part of the formal Pre-Application Consultation process. In this respect, the extent of the proposed extension has been reduced to 1.6 hectares (ha) so that it lies on the inside of the drainage leat that bounds the quarry. In view of the reduced extension, and in the light of being able to sell more of the quarry waste, the requirements for additional tip capacity has reduced. Accordingly, it is no longer proposed to amend the tipping arrangements from those approved as part of the Review of Old Mineral Permissions under the Environment Act 1995 (permission ref. C16/1164/16/MW).
- 3 This Non Technical Summary (NTS) has been produced as a separate document to accompany the planning submission, being a mandatory part of the Environmental Statement (ES). This provides, in non-technical language, a brief summary of the likely significant effects that the proposed development would have on the environment.

### Application Submission Package

- 4 This NTS comprises Volume 2C of a larger multi-volume submission to accompany the planning application. In addition to the formal planning application forms and certificates, the full submission comprises:
  - Volume 1 - Planning Statement;
  - Volume 2 - Environmental Statement;
    - Volume 2A – ES Text;
    - Volume 2B – ES Technical Appendices; and
    - Volume 2C – A Non-Technical Summary of the ES.
  - Volume 3 – Pre-application Consultation Statement.
- 5 The Planning Statement supports the planning application and considers the proposals in the context of relevant planning policies and strategies, and other material considerations.
- 6 This ES provides an objective account of the possible environmental effects of the proposed development by setting out the results of the Environmental Impact Assessment ('EIA') which has been

undertaken. It is intended to provide the MPA with sufficient information to determine the planning application having due regard to the protection of the local amenity and the environment as a whole. The ES has been prepared in line with the framework provided in the Town and Country Planning (Environmental Impact Assessment)(Wales) Regulations 2017 with cognisance given to the guidance set out in Circular 11/99: Environmental Impact Assessment and The Institute of Environmental Management and Assessment's "Guidelines for Environmental Impact Assessment". It also has regard to a scoping opinion issued by the MPA in March 2018 (see Chapter 4 of the ES).

- 7 Finally, the Pre-application Consultation (PAC) Statement describes the consultation that has been carried out by the applicant prior to making the planning application to fulfil the requirements of the Town and Country Planning (Development Management Procedure)(Wales)(Amendment) Order 2016 (the 'Development Management Procedure Order' or DMPO). This consultation is required for all planning applications for inter alia "major" development (be it in full our outline).
- 8 Copies of the ES can be obtained from SLR Consulting Limited at the following address so long as stocks are available:  
  
15 Middle Pavement  
Nottingham  
NG1 7DX
- 9 The ES, along with the other Volumes, are available in both paper and CD Rom formats, for which charges of £300 and £25 is applicable respectively<sup>1</sup>. A digital copy of the NTS is available free of charge on request, subject to the provision of a valid email address. The application documents will also be available to download from Gwynedd Council's web site.

### Planning and EIA

- 10 The European legislation (the Environmental Impact Assessment Directive or 'EIA Directive' for short) requires that, before granting 'development consent' for projects authorities should carry out a procedure known as environmental impact assessment (or "EIA") of any project which is likely to have significant effects on the environment. In the UK, development consent includes the grant of planning permission.
- 11 An ES is a report on the findings of an EIA that is required to be submitted with a planning application.
- 12 The extent and detail of the studies to be undertaken as part of the EIA has been agreed with Gwynedd Council through a formal 'scoping' process. The scoping exercise sets out the issues that need to be addressed as part of the EIA having regard to the nature of the development and local environment; it also indicates that the proposals are unlikely to give rise to any significant impacts in relation to transportation. This is explained in more detail in Chapter 4 of the ES.

### The Site

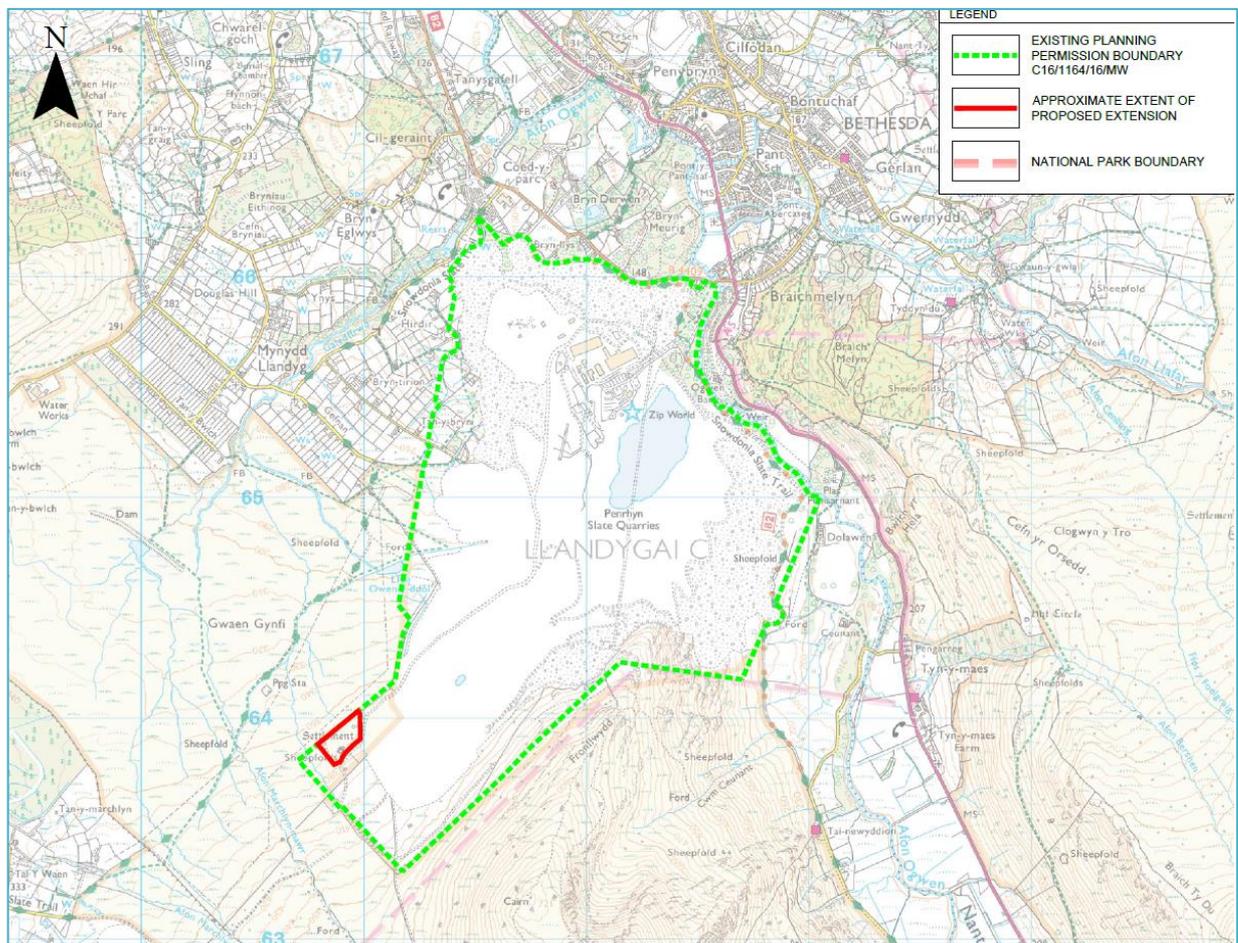
- 13 Penrhyn Quarry is located immediately to the south of the town of Bethesda, to the west of the A5(T). The settlements of Mynydd Llandegai, Bryn Eglwys, Coed y Parc and Braichmelyn form an arc to the north of the quarry, with the Afon Ogwen lying to the east and the mountains of the Glyder Ridge to the south.

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<sup>1</sup> A hard copy of the ES can be purchased on its own for a fee of £250 whilst stocks last.

- 14 Penrhyn Quarry itself extends over an area of some 318 hectares (ha), the majority of which has been disturbed to some degree by quarrying or associated activities. The main elements of Penrhyn Quarry are the old North Quarry (now worked out and flooded); the existing permitted working area in the South Quarry; the slate waste tips; the processing area, aggregate processing plant and the administration offices. The northern and eastern limits of the quarry are covered in the main by a series of slate waste tips, many of which are very old and reflect the primary means of slate waste disposal in the nineteenth century. The more recent slate waste tips are located on the north-western limits of the quarry and within the current quarry working area (at its northern end).

**Figure 1**  
**Site Location (not to scale)**



- 15 The proposed extension encompasses around 2.3 ha of land which is wholly within the area of planning permission ref. C12/0874/16/MW granted in December 2012<sup>2</sup> (see Chapter 2 of the ES). The proposed extension is bounded to the north and east by the quarry working area (current and future) with a recently constructed 'leat' (drainage channel) forming the southern and western boundaries, beyond which are areas of open upland land (Gwaen Gynfi). Not all of this area would form the proposed extension as margins to the north-western and south-western boundaries would be maintained; the extraction area would be around 1.6 ha in extent.

<sup>2</sup> This permission has been the subject of a "Review of Old Mineral Permissions" under the provisions of the Environment Act 1995 (ref. C16/1164/MW).

16 The extraction of slate produces large volumes of waste slate materials which need to be tipped in a fashion that does not impede the working of future areas. Historically, such materials were tipped at the edge of the quarry workings to create the 'fan' tips that have characterised the slate quarries in North Wales. Under the current operations, the majority of the waste slate is tipped within the northern end of the South Quarry; however, material has also been tipped on the western edge of the workings. As noted above the proposals seek to amend the profile of the main quarry tip, the location of which is shown on Drawing PQ 2/1. The South Quarry Tip is around 23.4ha in extent.

17 Chapter 2 within the ES provides further information on the application site and its environs.

## The Proposed Development

18 As noted above, the applicant is submitting two planning applications relating to its Penrhyn Quarry. The planning applications seek permission for:

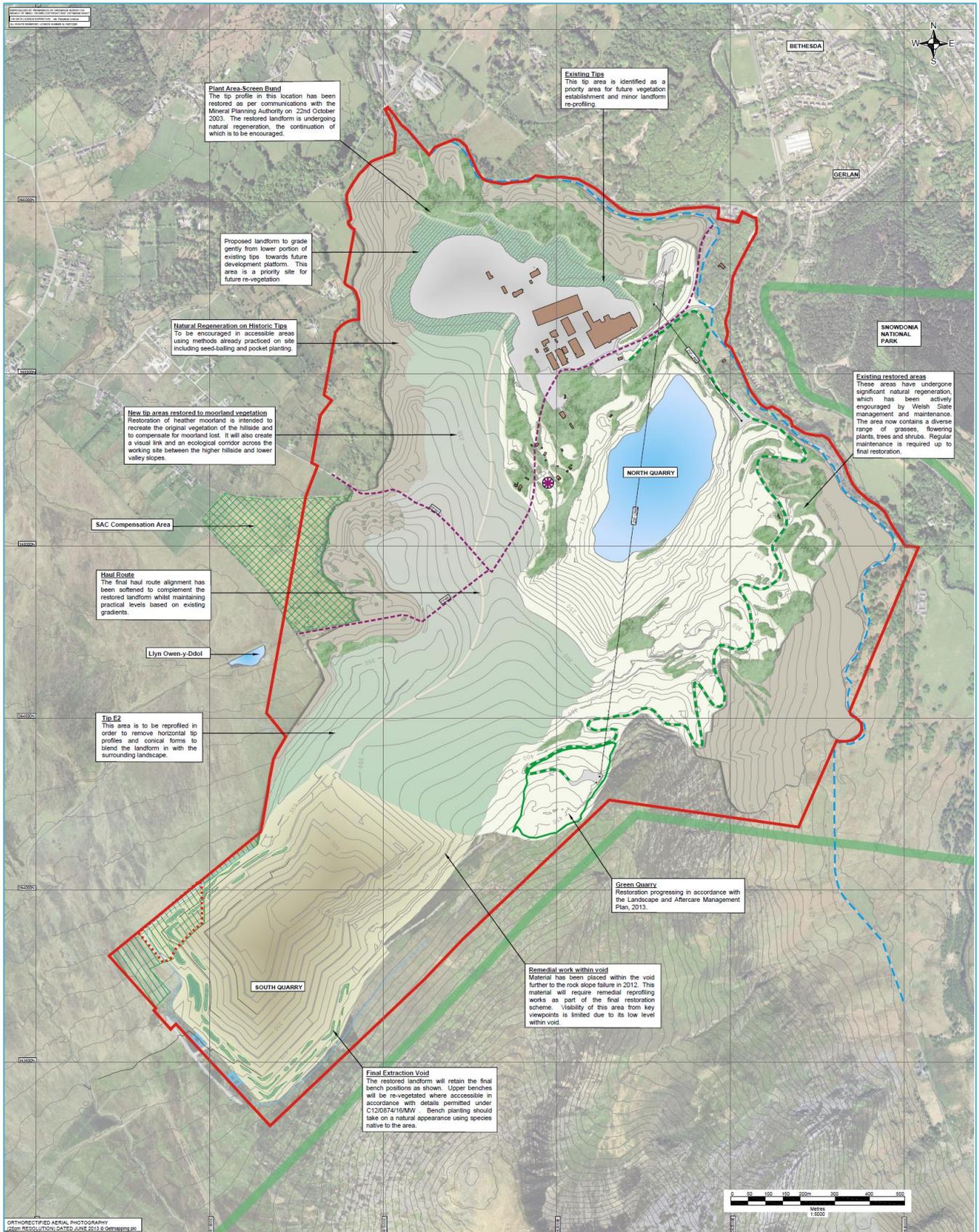
- a 'full' planning application to extend the quarry working area into around 1.6 ha of land lying adjacent and contiguous with the current working area. The proposed extension would release around 0.25 Mt (million tonnes) of high quality (purple) roofing slate and 1.9 Mt of red and blue slate for decorative aggregates (nett). In common with the extant scheme the proposals also incorporate the associated stockpiling of soils and overburden, landscaping works and restoration of the workings to a range of habitats. Notably, the extension would be wholly within the confines of the area covered by planning permission C12/0874/16/MW (dated 18 December 2012) but out with the extraction limits shown on the approved plans attached to that permission.
- an application under s.73 of the Town and County Planning Act 1990 (as amended) to extend the duration of slate extraction operations by up to three years to allow the additional reserves to be worked.

19 The proposed extension would be worked in an identical fashion to the current workings, for which a comprehensive working scheme was approved in 2017 as part of a review under the Environment Act 1995 (the 'ROMP review' ref. C16/1164/16/MW). The extension would form a logical progression from the previous extension to the workings (planning permission ref. C12/0874/16/MW) expanding the workings along the north-western side.

20 Further details of the proposed development are set out in Chapter 3 of the ES.

21 Figure 2 below provides an illustration of how the expanded quarry would be restored.

**Figure 2**  
**Restoration Proposals**



## Alternatives

- 22 In the context of the planning application few alternatives present themselves. In this respect, as the application site adjoins an operational mineral extraction site (and is within the boundary of the extant planning permission) then the question of alternative sites is not considered relevant.
- 23 The main alternative considered as part of this project was a larger extension to the workings (taking in 4.3 ha, so approximately twice the area). In view of consultation responses received, practically in relation to the potential effects on the ecological designations within and adjoining the application site, the scheme was amended.
- 24 The final alternative is the 'do nothing scenario'. In the absence of the proposed extension, the quarry would continue to experience difficulties in working due to the dyke, coupled with the narrow configuration of the quarry workings. Moreover, some 2.2Mt of good quality slate would be lost, curtailing the potential life of the quarry, the associated employment it generates and the ability to supply high quality slate products to the market (which is local, national and international).

## Policy Background

- 25 Chapter 5 of the ES sets out how the proposed development has been considered against relevant national and local planning policy.
- 26 The Welsh Government is committed to a plan led system, with the Development Plan forming the basis of all planning decisions. Legislation confers a presumption in favour of development proposals which accord with the Development Plan, unless material considerations indicate otherwise.
- 27 The planning application will be determined in accordance with prevailing policies at national and local level. National planning policies are contained in the Planning Policy Wales (Edition 11, February 2021) and the Technical Advice Notes, or TAN for short. Local policies translate national strategic issues into site specific proposals through the Anglesey and Gwynedd Joint Local Development Plan, which was adopted on 31 July 2017.
- 28 The application site is generally unaffected by any land based designations, but the proposed extension is located within the Eryri Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). In addition, the Snowdonia National Park lies in close proximity to the eastern boundary of the existing quarry and a recently designated World Heritage Site lies to the north.
- 29 The Local Development Plan seeks to reconcile the development needs of society against safeguarding the environment and amenity of local communities. In so doing, the Development Plan sets out a series of policies which seek to guide developments in terms of acceptable limits and design, whilst ensuring interests of archaeological, cultural heritage, ecological interest and importance are protected, and that the local amenity and environment of communities are not derogated through pollution to air, land or water.
- 30 Through the EIA process, it has been possible to demonstrate that the development proposals would not conflict with the stated aims and policies of the Development Plan. This is explored in greater detail within the Planning Statement (Volume 1) which also accompanies the planning application.

## Landscape and Visual Impact

- 31 A landscape and visual assessment (LVIA) of the proposed development has been completed in accordance with accepted guidance, and is presented in Chapter 6 of the ES.
- 32 The assessment includes a review of the baseline study of the existing site and its surroundings, a study of the landscape and visual characteristics of the development and an assessment of the residual landscape and visual impacts likely to be generated after mitigation has been considered and their significance.
- 33 In the case of the proposed development adverse landscape and visual effects would occur from the proposed mineral extension, although this is a very limited area within the context of the large -scale landscape of the study area, and outside the Snowdonia National Park. Any changes resulting from this extension would also be in the context of the existing quarry and no significant effects are predicted to occur. The importance of the Fronllwydd and Elidir Fach ridges are identified in the LVIA and these limit the effects of the existing quarry, as well as the extension area within the wider Snowdonia National Park.
- 34 The level of landscape effects identified in the LVIA are summarised in Table 5 in Appendix 6/2, the higher levels of effect identified are described in greater detail in the main text of the LVIA under 'Assessment of Significance of residual Landscape Effects'. Overall there are no significant landscape effects predicted as a result of the proposed development.
- 35 The level of visual effects identified in the LVIA are summarised in Table 4 in Appendix 6/3, the higher levels of effect identified are described in greater detail in the main text of the LVIA under 'Assessment of Significance of Residual Visual Effects'. The effects on the identified visual receptors within the local landscape is examined with reference to the identified viewpoints to describe the effects of the proposed development. Overall there are no significant visual effects predicted as a result of the proposed development.

## Ecology

- 36 Chapter 9 of the ES assesses the potential impacts on valued ecological receptors resulting from the proposed extension and changes to the approved scheme for tipping slate waste.
- 37 The assessment provides a summary of relevant policy and legislation, the assessment methodology that has been adopted and the ecological baseline. The scope of the assessment and a detailed assessment of the likely significant effects are then presented, along with details of environmental measures (additional mitigation) to avoid, minimise, mitigate or compensate for any remaining adverse effects (where required). The assessment concludes with a summary of residual effects and an evaluation of their significance, following incorporation of these environmental measures (where required) into the scheme.
- 38 The 2.26 ha extension area is wholly within Eryri SAC/SSSI but does not include any habitats that are qualifying features for the designated sites. It does, however, include grassland that may be used by foraging cough which are a notified feature of the SSSI, and contains boulders which support lichen species which are part of the notified lichen assemblage.

- 39 A detailed Habitat Regulations Screening Assessment is included as Appendix 7/4 of the ES in relation to potential impacts at the SAC. No likely significant effects have been identified as a result of the proposals, either alone or in-combination with other plans or projects.
- 40 Loss of boulders supporting a notable lichen assemblage that count toward the qualifying feature of the SSSI would be subject to mitigation, but confidence in the success of the methods is low. However, significant adverse effects to the designated feature are considered unlikely due to the very small extent of area affected.
- 41 The potential for hydrological impacts to the designated sites is avoided through the continued undisturbed presence of the existing leat. Monitoring of adjacent habitats would continue.
- 42 No changes to tipping arrangements are proposed, but tipping would continue for a further three years. This would assist in the continued presence of open mosaic habitat on previously disturbed ground (a Section 7 Priority Habitat) at Tip E2. No significant residual impacts are predicted.
- 43 Breeding birds and common lizard are likely to occur within the site and precautions outlined in the ES aim to reduce the risk of harm to these species and avoid any offences under the governing legislation.

## Cultural Heritage

- 44 An assessment has been undertaken in relation to Cultural Heritage and is presented in Chapter 8 of the ES.
- 45 Cultural heritage is represented by a wide range of assets that result from past human use of the landscape. These include historic structures, many still in use, above ground and buried archaeological monuments and remains of all periods, artefacts of anthropological origin and evidence that can help reconstruct past human environments. In its broadest form cultural heritage is represented by the landscape and townscape itself.
- 46 The assessment considers both direct and indirect effects upon cultural heritage. Direct effects are those that physically affect a cultural heritage asset. Indirect effects can occur as a result of significant changes to the setting of a cultural heritage landscape or asset, whether permanent or temporary. This is particularly relevant to designated assets such as Scheduled Monuments, a World Heritage Site, Listed Buildings, Conservation Areas, Registered Parks and Gardens and Registered Historic Landscapes.
- 47 Desk-based research, a site walkover and visits to designated heritage assets were carried out. Geophysical survey and trial-trenching of the extension area was undertaken in 2017 and 2018.
- 48 The proposed extension lies within a landscape important for prehistoric and industrial archaeology, but without much evidence for the intervening period. The field-based evaluation within the proposed extension has successfully identified the archaeological potential and allowed a mitigation strategy to be designed. In this context an appropriate approach to mitigation is to ensure preservation by record through archaeological excavation, recording, analysis and publication appropriate to significance of the archaeological resource. This would involve archaeological excavation of a prehistoric settlement site with evidence of small-scale iron working, structural recording of a post-medieval sheepfold and a watching brief over the remainder of the proposed extension.
- 49 The direct effects upon archaeology are assessed as of medium sensitivity and medium magnitude. Taking into account the proposed mitigation the effects are not significant.

- 50 The assessment has also concluded that the proposed extension would have a direct impact on one historic landscape character area (HLCA) within the registered Ogwen Valley landscape (Moel y Ci/Gwaen Gynfi unenclosed uplands) but that the loss would comprise a very small part of the HLCA.
- 51 The effect of this impact was assessed under the EIA Regulations as of small magnitude and not significant.
- 52 Other than the Ogwen Valley historic landscape, the proposed development would not directly impact upon designated assets of the historic environment.
- 53 The vast majority of designated heritage assets within a 3km radius of the proposed extension were scoped out of assessment due to there being no visibility. There is no inter-visibility between scheduled monuments and the proposed extension and at more than 2km distance the settings of the scheduled monuments would not be affected.
- 54 The proposed development would have no direct impact on the World Heritage Site nor its Outstanding Universal Value. It would lie within its buffer zone where quarrying is permitted. Under the EIA Regulations, the effect of this impact was assessed as of small magnitude and not significant.
- 55 The proposed development would have slight or very slight indirect visual impacts on eleven HLCA within the registered landscapes of Ogwen Valley and Dinorwig. Under the EIA Regulations this is assessed as of small magnitude and not significant, with the exception of the impact upon Bethesda and Llanllechid HLCA which is assessed as moderately significant. This is a result of the high value of the historic character area, rather than the scale of indirect impacts or reduction in value, both of which are graded as 'very low'.
- 56 Having regard to the baseline conditions, the nature of the proposed development and the proposed measures that would be effective in mitigating the impacts of the scheme, there would be no significant residual effects (direct, indirect, cumulative or combined) upon known cultural heritage assets. The proposed development therefore fully accords with both local and national cultural heritage policy. It is supported by Objective 7 of the World Heritage Site Management Plan that promotes a sustainable slate industry.

## Water Environment

- 57 Chapter 8 of the ES considers the water environment in terms of ground and surface water. The chapter describes the scope, relevant legislation, assessment methodology and the baseline conditions currently existing at the application site and its surroundings. It then considers any potential significant environmental effects the proposed extension to the quarry could have on this baseline environment, the mitigation measures required to prevent, reduce or offset any significant adverse effects, and the potential residual effects after these measures have been employed.
- 58 The purpose of the assessment is to assess the proposed development with respect to risks posed to the water environment. The assessment includes the management of water from a hydrological and hydrogeological perspective; definition of the current conditions; considers potential impacts on water dependent environmentally sensitive features; and includes a flood consequence assessment.
- 59 The quarry including the proposed extension is underlain by Cambrian age strata predominantly comprising Llanberis Slate. The faulting, jointing; fracturing and cleavage planes in Slate affords it a

secondary permeability. On the quarry scale, this secondary permeability is of limited significance. The Llanberis Slate Formation at the quarry is designated by the Environment Agency / Natural Resource Wales as a Secondary B aquifer.

- 60 In the vicinity of the quarry, scree and thin soil cover dominates the upper slopes but the lower slopes, including the proposed extension are covered with superficial deposits. The superficial deposits comprise a mixed sequence of clay or silt bound sands, outwash gravels, boulder clay (till) and peat deposits.
- 61 The distribution of water in the superficial deposits has been shown to be irregular, with both vertical and lateral movement inhibited by the presence of low permeability clays. Water flow through the bulk of the superficial deposits is very low; similar to that of the underlying geology. The coarser materials such as sands and clay bound gravels contain water that provide groundwater throughflow within the superficial deposits providing shallow and narrow groundwater pathways potentially of limited spatial extent.
- 62 The existing water management system at Penrhyn Quarry utilises a combination of drainage channels, open channels, pumped drainage, and surface water attenuation areas along with settlement lagoons. From a drainage perspective, the quarry can be split into the main quarry void; the processing area; the quarry haul road; the spoil tips; and the old quarry void. With the exception of parts of the spoil tips, the water within the quarry is directed to the old quarry void water body before being discharged to the Afon Ogwen. The Old quarry void water body provides a significant amount of dilution, storage, and settlement.
- 63 In November 2014, a new interceptor and recharge leat was completed for the westward expansion of the quarry. The leat is positioned to intercept and convey surface drainage water from up-slope of the permitted extraction area to the downgradient heathland which forms part of Gwaen Gynfi. The primary purpose of the leat is to compensate for the loss of hydrological catchment and maintain a source of water to the downgradient heathland. The proposed extension will not change or divert the existing leat allowing the compensation to continue.
- 64 There is no mains foul sewer associated with the Penrhyn Quarry. Foul sewage is managed by way of a package treatment plant that has been sized to accommodate the number of personnel at the quarry. The package treatment plant condition and functionality are checked on a regular basis and maintained and serviced as and when required.
- 65 The quarry is considered not to be at 'high' risk from either fluvial or pluvial flooding and is not located in designated flood risk zones. Water and surface runoff within the quarry is managed in a manner that provides a significant amount of storm runoff attenuation. Flood risk will not be increased as a result of the proposed extension. Therefore, the quarry water management will not increase the flood risk elsewhere and provides a betterment to flood risk downstream.
- 66 This assessment has identified and evaluated any impacts due to the current quarry footprint, including those of the proposed extension. With the exception of Gwaen Gynfi heathland where the residual risk of impact is considered to be low, the general residual risk of impact to surface and groundwater features is considered to be none to very low, provided mitigation measures are in place and monitored; assessed and adjusted, if required. Although a residual risk is present, this is not considered to be significant.

## Noise

- 67 Chapter 10 of the ES considers the potential for the proposed extension to the quarry to impact upon the noise environment in the vicinity of the application site. The chapter describes the scope, relevant legislation, assessment methodology and the baseline conditions that exist around the application site. In particular, the assessment uses certain limits or levels prescribed in relevant national standards (such as British Standards) to determine the noise effects.
- 68 The assessment has considered the potential noise impact from the development of the proposed extension, including the associated movement and distribution of materials. The predicted noise levels for the closest receptors were assessed against derived noise limits set out in the current planning permission. The worst-case predicted noise levels generated the proposed operations would be below the conditioned noise limits at all receptor locations. Therefore, significant noise effects from the operations are unlikely to occur and no mitigation would be required.
- 69 An assessment of the cumulative acoustic impact of the proposed operations in conjunction with the existing operations within the quarry has also been undertaken. Again, this has shown that noise levels would be below the noise limits set out in the current planning permission.
- 70 It is concluded that noise should not pose a material constraint for the development of the proposed extension as proposed in the planning application.

## Air Quality

- 71 Chapter 11 of the ES assesses the potential for the proposed development to impact upon air quality in the vicinity of the application site.
- 72 The chapter describes the scope, relevant legislation, assessment methodology and the baseline conditions at the application site and the surrounding area. The assessment considers any potential significant environmental effects that the proposed development would have on the baseline environment; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual impacts after these mitigation measures have been employed.
- 73 The potential impacts of the development have been assessed in terms of potential emissions of particulates (dust). Two assessments have been undertaken; the first to assess the PM10 fraction for which Air Quality Standards exist, and the second to assess the coarse fraction dust which is typically associated with amenity issues.
- 74 An assessment of PM10 and PM2.5 was completed following guidance within LAQM.TG(16) considering background particulate matter levels and distance to receptors. Background levels are 'well below' the limit. The proposed development of the extension is not considered to lead to a significant increase in PM10 and PM2.5 emissions which would lead to an exceedance of the Air Quality Objective.
- 75 A qualitative assessment of deposited dust was undertaken which identified the potential additional sources of dust onsite. The risk of dust impact at residential receptors was assessed as insignificant considering the distance to onsite operations and frequency of exposure. The potential for dust impacts on the surrounding ecological sites is considered to be not significant.

- 76 With the continued implementation of mitigation measures undertaken onsite in accordance with best practice, and as required by the current planning conditions, the residual impact is considered to be acceptable or insignificant.
- 77 All potential dust impacts from the proposed development are considered to be reversible i.e. the risk of impact will cease on completion of the extraction and restoration activities at the site, with no significant impacts on local air quality on the completion of the development.

## Vibration

- 78 Chapter 12 of the ES reports the findings of a quantitative assessment of the potential effects upon nearby receptors from vibration generated by blasting operations within the proposed working area.
- 79 It is widely accepted that it is the peak particle velocity (PPV) which needs to be monitored using a piece of equipment known as a seismograph; the PPV is monitored in three perpendicular planes to capture the maximum.
- 80 The existing planning permission provides limits to the amount of vibration at the nearest receptors to the quarry workings. Based on extensive research around the world these levels are well below that which would cause damage to properties.
- 81 Using monitoring data recorded from blast events analysis within the assessment has shown that the development within the proposed extension would be able to comply with the existing planning conditions.
- 82 Air-overpressure can be a cause of concern for local residents but levels for Penrhyn Quarry are well within guidelines and would not cause damage to properties.
- 83 Therefore, vibration generated by blasting events is not considered to be a limiting factor in continued blasting within the proposed extension to the quarry.

## Wellbeing

- 84 Brief consideration has been given to the potential effects on the wellbeing of the local community surrounding the quarry, which is reported in Chapter 13 of the ES.
- 85 The assessment has looked at the baseline conditions regarding population, employment and health and found that the area within which Penrhyn Quarry is located does not suffer from significant deprivation or have any underlying poor health issues.
- 86 The assessment then examined three key themes of principal relevance to wellbeing, namely:
- (i) dust and air quality;
  - (ii) noise; and
  - (iii) blast induced vibration.
- 87 The assessment summarise the key concerns, the approach taken as part of the ES and the mitigation measures proposed in the ES.

88 Overall, given the controls that are already in place (as imposed through planning conditions for example) and based on the new assessments undertaken (and referred to earlier in the NTS) it is considered that the proposals would not have a significant effect on the wellbeing of the community.

## Cumulative Effects

89 Chapter 14 of the ES considers cumulative effects.

90 Cumulative effects may result from a number of situations:

- the interaction or proximity of two or more current mineral operations (not necessarily for the same type of mineral) or developments of a similar nature;
- the continuation of a particular working over a period of time through successive extensions;
- the interaction or accumulation of different impacts at one site, affecting a range of sensitive receptors; and
- a combination of the above scenarios.

91 In considering the potential cumulative impacts, it is important to keep in mind the extant planning permissions for the quarry.

92 Consideration has been given to the potential cumulative effects with existing operations and no cumulative effects have been identified. There are no other mineral operations within the immediate vicinity of the proposed extension that could give rise to cumulative effects. In addition, there are no other forms of developments in the area that would give rise to any significant cumulative effects.

## Conclusion

93 This Non Technical Summary has outlined the findings of the Environmental Impact Assessment of the development proposals contained within an Environmental Statement ('ES').

94 The Environmental Impact Assessment has considered the likelihood of significant environmental effects occurring from the proposed expansion of the working area upon the site itself and its surroundings. The environmental issues addressed as part of the scheme have been identified through a combination of review of published data; desk based and site survey work; and consultation with the MPA and other organisations.

95 The ES has not identified any significant effect from the proposed development. The overall conclusion is that, with the adoption of the mitigation measures embodied within the project design, or imposed through planning conditions, any impacts identified can be maintained within acceptable limits.

## Statement of Competence

96 The EIA Regulations introduces a new requirement for the *“developer to ensure that the environmental statement is prepared by competent experts”, with the environmental statement to be “accompanied by a statement from the developer outlining the relevant experience and qualifications of such experts”*.

97 The EIA Report has been prepared by SLR Consulting Ltd which has a specialist capability in mineral and waste planning. SLR is a member of the 'Institute of Environmental Management and Assessment' (IEMA) with an awarded 'EIA Quality Mark'. The EIA Quality Mark is a voluntary scheme, operated by IEMA through which EIA activity is independently reviewed, on an annual basis, to ensure it delivers excellence in the following areas:

- EIA Management
- EIA Team Capabilities
- EIA Regulatory Compliance
- EIA Context & Influence
- EIA Content
- EIA Presentation
- Improving EIA practice

98 The EIA Report has thus be prepared by 'competent experts', and is supported by an EIA project team with expertise and experience in the technical disciplines to be assessed.



## EUROPEAN OFFICES

### United Kingdom

#### AYLESBURY

T: +44 (0)1844 337380

#### BELFAST

T: +44 (0)28 9073 2493

#### BRADFORD-ON-AVON

T: +44 (0)1225 309400

#### BRISTOL

T: +44 (0)117 906 4280

#### CAMBRIDGE

T: + 44 (0)1223 813805

#### CARDIFF

T: +44 (0)29 2049 1010

#### CHELMSFORD

T: +44 (0)1245 392170

#### EDINBURGH

T: +44 (0)131 335 6830

#### EXETER

T: + 44 (0)1392 490152

#### GLASGOW

T: +44 (0)141 353 5037

#### GUILDFORD

T: +44 (0)1483 889800

#### LEEDS

T: +44 (0)113 258 0650

#### LONDON

T: +44 (0)203 691 5810

#### MAIDSTONE

T: +44 (0)1622 609242

#### MANCHESTER

T: +44 (0)161 872 7564

#### NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

#### NOTTINGHAM

T: +44 (0)115 964 7280

#### SHEFFIELD

T: +44 (0)114 245 5153

#### SHREWSBURY

T: +44 (0)1743 23 9250

#### STAFFORD

T: +44 (0)1785 241755

#### STIRLING

T: +44 (0)1786 239900

#### WORCESTER

T: +44 (0)1905 751310

### Ireland

#### DUBLIN

T: + 353 (0)1 296 4667

### France

#### GRENOBLE

T: +33 (0)4 76 70 93 41