



**DENBIGH QUARRY, PLAS CHAMBRES ROAD
DENBIGH, DENBIGHSHIRE LL16 3YE**

**CONSOLIDATING APPLICATION FOR THE EXTENSION OF WINNING AND
WORKING OF LIMESTONE, IMPORTATION OF INERT RESTORATION
MATERIAL AND RESTORATION TO AMENITY**

VOLUME 3

**NON TECHNICAL SUMMARY OF
ENVIRONMENTAL STATEMENT**

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DRAWINGS

- 3.3 M18.155.D.003 - Location Plan

1.0 INTRODUCTION

1.1 Background to Application

1.1.1. This document is a non-technical summary of the Environmental Statement that is being submitted with the planning application for limestone extraction, importation of inert restoration material and restoration to amenity at Denbigh Quarry.

1.1.2. It provides the information required by Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 without using technical terms or jargon.

1.2 Screening

1.2.1 The Applicant looked at the thresholds that are expressed in the Regulations and came to the conclusion that the proposals are a change to a type of development where environmental impact assessment is mandatory so it might be necessary to submit an Environmental Statement (ES). The extension area will also provide a level of output that exceeds the threshold.

1.2.2 On this basis a request for a Scoping Opinion was submitted to Denbighshire County Council and the response was received on 14th August 2019.

1.2.3 The Scoping Request identified the need for studies relating to;

- Potential landscape & visual effects;
- Potential effects on ecology & nature conservation interests;
- Potential effects on archaeology & cultural heritage interests;
- Potential effects of noise;
- Potential effects of dust and effects on local air quality;
- Potential effects on the water environment;
- Potential effects on soil resources;
- Mineral transport
- Potential effects on public rights of way.

1.2.4. Suggested changes to the methodologies expressed in the Scoping Opinion included;

- An assessment of the amount of Ash trees in the existing screening belt to the south of the existing quarry
- The inclusion of geophysical survey as a means of informing the archaeological content of the site.
- An assessment of the impact of the development on registered historic landscape using the ASIDOHL process.
- The heritage survey area is increased from 2km to 3km.
- The noise sensitive receptors used for the previous application should be used for this application.
- A Flood Consequence Assessment is not required.
- Any ALC report must be validated by the Land, Nature and Forestry Division of Welsh Government.
- Reference to the Regional Technical Statement should be made in any argument regarding the need for the development.

1.2.5. These changes have been accepted and the methods adjusted accordingly. All studies and assessments have been carried out by appropriately experience and qualified, competent personnel.

1.3 Environmental Statement

1.3.1 This statement comprises Volume 3 of a three volume submission to accompany the planning application. The full submission comprises:

- Volume 1: Planning Statement;
- Volume 2: Environmental Statement (ES); and
- Volume 3: A Non Technical Summary (NTS) of the ES.

1.3.2 The ES describes the Application Site and the proposed operations and draws together the findings of an Environmental Impact Assessment (EIA) undertaken to investigate the likely significant environmental effects of the continued development of Denbigh Quarry.

1.3.3 Therefore, these topics, as amended, form the basis of the EIA. The NTS has been produced as a separate document, being a requirement of the assessment process. This provides, in non-technical language, a summary of the ES.

2.0 SCHEDULE 4 INFORMATION

2.1 Location of the Development

- 2.1.1 The quarry is located in Denbighshire approximately 0.3km to the north of Denbigh Town.
- 2.1.2 Drawing No 001 - Location Plan shows the location of the quarry in the wider landscape and its' relationship with the built-up areas of Denbigh and the agricultural/industrial uses that are adjacent to and extending from the site. The area subject to this Environmental Impact Assessment is the full extent of the land covered by the existing planning permission and the proposed extension.
- 2.1.3 The nearest residential receptors are listed in the vibration and noise assessments accompanying the Planning Statement as;
- Properties on Ffordy Graig north east of the site;
 - Graig Farm (south east of the site on Ffordy Graig);
 - Tan Y Charwell (south east of the site off Ffordy Graig);
 - Bryn Seion (due south of the site); and
 - Properties on Ffordd Coppy (the B5382, to south west of the site).
- 2.1.4 There are national ecological designations to the northwest and south of the site. The site is connected to the highway network via the existing access which leads onto Plas Chambres Road/Graig Road.

2.2 Physical Characteristics of the Development

- 2.2.5. The proposed development includes the extraction of the existing remaining limestone and the continuation of the working to the west along with the importation of inert restoration material to bring levels back up to original ground levels in the north and lower elevations in the main body of the quarry. The extraction in the extension is preceded by the stripping of soils to provide a perimeter bund that would be seeded and planted. This stripping would involve the diversion of a Public Right of Way.
- 2.2.6. The stone would be extracted in layers by drilling from the upper side and using explosives to shatter the rock. The broken rock would then be transported to the plant site where it would be crushed to size and stockpiled before being exported in roadgoing vehicles that would enter and leave through the existing access. The restoration material would be imported the same way and would be gradually built up in layers starting from the north.

2.2.7. The existing and proposed operations, comprising the development are fully described in the Environmental Statement (Volume 2). The restoration involves the planting of trees that join the Ty Mawr woodland to the Coed Parc-Pierce woodland. The matured screen planting will also provide a woodland corridor between Crest Mawr SSSI and the woodland on the southern side of the quarry. The cliff faces would be softened with planting and the main floor of the quarry would become grassland. There would be a seasonal wetland in the base of the quarry which would drain naturally through the limestone beneath.

2.3. Characteristics of the operation

2.3.1. The overall operation is relatively simple and repetitive. The soil strip takes place in one single operation that would be observed by archaeologists. The soils are piled up around the edge of the excavation to provide both visual screening and noise reduction. That soil bund will be seeded immediately and receive tree planting. The bund will green up in approximately six weeks but the tree planting will take 10 years to provide dense cover.

2.3.2. The phases of extraction are shown on the plans submitted with the application and show how the different layers will progress over time. Drilling and blasting lasts for approximately one week each time and takes place on an approximate six-week cycle. The processing plant will remain in the same location as at present.

2.3.3. The restoration of the site would take place progressively with the land being raised back up to original height in the north and lower than original height in the centre and west of the quarry.

2.4. Expected Residues and Emissions

2.4.1. It is expected that the quarrying and recycling operations will have the following emissions.

2.4.2. Landscape and visual - these impacts have been considered from a number of locations and also considering how that will be altered over time. The site sits within a designated heritage landscape and is visible from a number of viewpoints including footpaths and Denbigh Castle. There are also fleeting glimpses from some roads.

2.4.3. The landscape within the extension area will change from agricultural to quarry and then grassland/wetland and cliff faces. The main quarry will change from quarry to woodland and grassland with perimeter cliff faces. The assessment for landscape has followed a specific method for heritage landscapes. The assessment concludes that the proposed development will have a direct impact and slight indirect physical impact on one of the Vale of Clywd registered historic landscape's thirty-eight Historic Landscape Characterisation Areas. At year one the visual impact would be between

‘moderate’ and minor adverse but at year 15 this is reduced to minor adverse or neutral for all viewpoints.

- 2.4.4. In conclusion, due to the mitigation design the impact of the operational phase of the Proposed Development upon landscape and visual receptors would be minimised and no Significant effects are predicted.
- 2.4.5. Ecology impacts - the Preliminary Ecological Appraisal identified potential habitats, important vegetation and the need for additional surveys relating to certain species. These surveys were undertaken at the appropriate time by qualified and experienced ecologists. The mitigation that has been considered relates to controls that are exercised to reduce dust, noise and water impacts. There would be negligible to moderate adverse impacts on designated sites, habitats and protected species at the site level and the local level without mitigation.
- 2.4.6. The mitigation is partly embedded in the design including the 30 metre standoff from Crest Mawr SSSI and it is anticipated that the control of noise and dust will be carried over from the existing operation through planning conditions. With the implementation of the mitigation measures such as a method of tree felling, protection of Great Crested Newts and the installation of bird/bat boxes the end impact is negligible.
- 2.4.7. Archaeology and Heritage - there will be no archaeological or heritage assets within the main quarry although there is a connection between the historic quarry and buildings in Denbigh itself. A non-intrusive survey of the whole extension area was undertaken and did not reveal very important structures underground. This survey was backed up by the digging of trenches under supervision of an archaeologist. The trenching also did not provide evidence of important remains.
- 2.4.8. The assessment considers the indirect effect of the development on designated assets in the vicinity;
- Denbigh Castle and Medieval Town (DE156)
 - Denbigh Medieval Town NE Corner (DE225)
 - Leicester’s Church (DE044)
 - St Hilary’s Chapel Tower (DE005)
 - Denbigh Town Wall (DE002)
- 2.4.9. There will a slight adverse effect on some of these assets at Year 1 but no effect before the 15 year maturation of the screening planting. The heritage assessment considers that there will be two factors which are subject to a ‘moderately significant’ residual impact. These are the direct effects upon the historic landscape of the Vale of Clwyd and the indirect effects upon the setting of the historic landscape of the Vale of Clwyd.

- 2.4.10. It is recommended that any archaeological remains are preserved by record and, therefore, with mitigation there will be no significant effects.
- 2.4.11. Noise and vibration - these impacts have been considered in the production of two assessments accompanying the Planning Statement in order to inform the modern planning conditions. Tarmac will continue to operate the site in accordance with the best practice measures already employed at the site. The quarry operations may be audible and blasting vibration may be experienced by local receptors.
- 2.4.12. It is recognised by Planning Policy that development results in some impacts and that there are reasonable levels of impact which can be experienced. These levels are set as night and day noise levels in Decibels and vibration in millimetres per second. The background noise was monitored and vibration measurements taken from previous blasts. Taking into account the types of equipment that are proposed to be used, predictions of noise levels have been made using computer programs. In order to achieve the levels considered acceptable by Planning policy the height of the perimeter bund on the southern side of the extension has been increased.
- 2.4.13. The calculations of blasting vibration have been made by working back from the lower acceptable limit at residential property to identify the maximum explosive charge weight. Records from previous years show that previous blasts have resulted in lower vibration levels than required by the planning conditions. Vibration from the use of plant has also been considered. With the revised bund design the operations are shown to be lower than the operational and temporary noise thresholds set out in the guidance. Employing the mitigation measures and best practice means that the operation can comply with the thresholds and the effects are considered to be acceptable.
- 2.4.14. Air Quality - this Chapter has identified where air quality emissions can arise from the proposed development and where the potential receptors are located. It factors in the measured wind direction and wind speed to establish how much impact would occur and how frequently. Emissions from transport are not assessed as the proposed transport activity falls well below the current permitted level. Two particle sizes for dust are considered as well as the level of Nitrogen dioxide. Data collection shows that these have all, historically, been well below the acceptable guidance thresholds.
- 2.4.15. The outcome of the assessment is that the air quality effect is “not significant”. The designed in mitigation measures together with the operational measures currently implemented which will be continued within the Proposed Quarry Extension are considered appropriate to mitigate potential impacts therefore additional mitigation measures are not required.
- 2.4.16. It is anticipated that dust control measures will be the subject of a planning condition.

2.4.17. Hydrology and Hydrogeology - At present the quarry accepts rainwater and precipitation. The water settles in the base of the quarry where it soaks away or is pumped out to the settling ponds where it the gravity feeds to the adjacent watercourse. The proposal is for all future collected water to be passed through a settlement pond before being allowed to flow to the watercourse. Impacts are considered in terms of both quality and quantity. Those impacts which could occur are effectively controlled by the proposed settlement and drainage proposals.

2.4.18. The levels proposed in the phasing and restoration schemes divide the site into two catchment areas. During operation the water that collects in the main quarry would be pumped out gradually to be discharged off-site. When the site is restored the main quarry includes a water body that will grow and shrink seasonally with the water seeping into the ground.

2.4.19. Consideration has also been given to how local water supplies will be affected by the extension of mineral extraction causing a 'drawdown' effect.

2.4.20. With the mitigation measures in place it is assessed that there will be no significant water-related impacts.

2.4.21. Soil resources - the proposed development will result in the loss of four hectares of Grade 3a agricultural land. This loss is unavoidable and forms part of the planning balance which is set out in the Planning Supporting Statement.

2.5. Alternatives

2.5.1. As this is an existing operation with existing infrastructure, there are no reasonable alternatives which the applicant has considered in respect of the development.

2.6. Factors to be affected

2.6.1. As the quarrying operation moves location within the quarry the ecological, water, noise and vibration environments will alter but there will be planning conditions in place to control the levels at which these changes can occur. Externally, the transport will continue as previously consented up to historic levels.

2.7. Likely Significant Effects

2.7.1. The assessments carried out by the various consultants have indicated that with appropriate mitigation there will not be a significant impact on any aspect of the environment.

2.8. Methods used to Assess Impacts

- 2.8.1. Different calculations are undertaken for each topic area and different computer software provides the results, but each topic is examined in a similar way identifying the current situation (baseline), determining where the impact will be experienced (receptors), understanding the size of the impact and how sensitive the receptor is that impact. The methods are described in detail in each Appendix/Chapter to the Environmental Statement.
- 2.8.2. For example, the noise assessment has looked at houses that are closest to the boundary of the site in all directions. The equipment sound emissions have been identified with assumptions about the amount of time that they will be working and their 'worst case' location. This allows a prediction of the combined noise that would be experienced if the plant were working at the nearest location to each property in turn.
- 2.8.3. The assessments then explore the actions that can be taken (mitigation) to avoid or reduce the impact. These actions can be simple such as restricting the hours of opening or damping down surfaces on dry, windy days. The applicant has agreed to put in place all of the recommended measures. When the actions are taken into account the assessors can indicate, with some certainty, what the 'residual' or remaining impact is likely to be.

2.9. Mitigation and Monitoring

- 2.9.1. It is expected that any new planning permission will be approved subject to planning conditions that set limits on the environmental emissions in accordance with current best practice. The operator will be required through these conditions to undertake monitoring of those impacts and supply the records to the Planning Authority. The Planning Authority will also undertake regular site visits to ensure that the development is being carried out in accordance with the approved application details.
- 2.9.2. Ecological mitigation measures are set out in the Ecological Impact Assessment and include the removal of vegetation at the correct time of year so that animals have the opportunity to leave the area.

2.10. Residual Adverse Effects

- 2.10.1. None of the assessments has shown that there will be an unacceptable level of impact if the appropriate limits are set and the appropriate controlling actions are undertaken.

3.0 CONCLUSIONS

3.1 Introduction

- 3.1.1 The Environmental Impact Assessment process has been undertaken by qualified, experienced professionals using accepted survey techniques and appropriate data sources.
- 3.1.2 Where interpretation or application of computer programmes has been required they have exercised their professional judgement.
- 3.1.3 The scope of the Environmental Statement has been focused on those areas where likely significant effects could occur and other assessments have been undertaken outside the EIA process that inform the potential planning conditions.

3.2 Conclusions

- 3.2.1 Chapter 3 of the ES highlights that the reserves at Denbigh Quarry are sufficient to sustain production for 25 years and the development scheme, shown on the Phase 5 drawing (M18.155.D.038 Phase 5), makes provision for the full recovery of that mineral reserve. Significant mineral resources would be sterilised if the operating life of the quarry was curtailed to a period shorter than that required to recover the full resource.
- 3.2.2 It is anticipated that, with the implementation of built-in and proposed mitigation there will not be significant effects on the environment as a result of the proposals. There are no indications that effects will combine, and no other projects that are likely to contribute, so that a greater effect is experienced.
- 3.2.3 The planning conditions will be subject to review prior to the completion of the development.