



An
Bord
Pleanála

Inspector's Report 03.QD0012

Development

Extraction of aggregates using conventional drilling and blasting techniques within an area of 12.42 hectares, Clonmoney North, Bunratty, Newmarket on Fergus, Co. Clare.

Planning Authority

Clare County Council

Applicant

Roadstone Ltd.

Type of Application

Section 37L application

Inspector

Pauline Fitzpatrick

Date of Site Inspection

24/10/16

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1.0 Introduction

- 1.1. The current application for further quarry development was received by the Board on the 23rd day of December, 2015, following the enactment of Section 37L of the Planning and Development Act, 2000, as amended. This application is related to file ref. SU0111, application for substitute consent lodged on the 28th July, 2014 accompanied by a remedial EIS and remedial NIS.

2.0 Site Location and Description

- 2.1. The site is as largely described on SU0111 and is as follows:
- 2.2. The site subject of the application, equating to 12.42 hectares, constitutes the northern portion of a larger quarry site with a stated area of c. 97 ha. This includes an extraction area of c. 55 hectares and a c. 4 ha site located on the opposite side of the road. Approx. 40 hectares of the lands within the landholding remain in a greenfield condition. The site is located in the townlands of Bunratty West and Clonmoney North adjacent to the village of Bunratty in south County Clare. The quarry is accessed via a local road (L-3122) which links the N18 to the village. To the east of the landholding the Owenogarney River flows in a south-south-westerly direction and discharges into the Upper Shannon Estuary. At its closest the river is c. 400 metres from the south-easterly tip of the landholding.
- 2.3. Production plant is located at the southern end of the overall quarry complex. The structures and plant in this area include site offices, workshops and car parking areas close to the site entrance and beyond this there are two asphalt plants, a block yard and a batching plant. Settlement ponds are located to the west of the plant area close to the site boundary with a surface water collection sump immediately to the south-west of the application site. The quarry extraction area lies to the north of the manufacturing area and includes active areas undergoing extraction and areas previously subject to extraction.
- 2.4. The subject site referred to as both the 'Melody Lands' and as 'Clonmoney North' (in the current application) constitutes the northern most section of the quarry and has

been subject to surface stripping and extraction at upper levels. The application site runs parallel to the north and north-western boundaries of the overall quarry site which are delineated by post and wire fencing and planting.

2.5. The topographic elevation of the overall quarry ranges from 60m AOD to the east to 10mAOD to the south (unexcavated areas). The site subject of the application ranges from 58mAOD to the east to 5m AOD at quarry floor level.

3.0 Application for Further Quarry Development

3.1. The application for further quarry development received by the Board on the 23rd day of December 2015 includes a completed application form, copies of statutory notices, an EIS, an NIS and associated drawings.

3.2. The active quarry area has permission under ref. 06/2561 to be excavated in 6 phases to a finished floor level of -40m OD. The site to which the application refers constitutes the northern section of the larger quarry site with a stated area of 12.42 hectares. The lands have been referred to as the 'Melody Lands' in the past and are referred to as 'Clonmoney North' in the current application. The proposed continuation on the application site would be in parallel to that granted under 06/2561 and the extraction areas worked as one. This entails the continuation of extraction for rock to a finished floor level of – 40m OD in 6 phases.

3.3. Blasting and drilling techniques are to be used, followed by crushing and screening of rock to produce various grades of aggregate.

3.4. Any remaining topsoil and overburden is to be stripped and used for earthen berms for screening with restoration works on completion of extraction.

3.5. There is no infrastructure associated with the application area. The existing facilities including the surface water collection and treatment system will continue to be used.

3.6. All quarrying plant and equipment to be used is of a mobile nature. Track mounted crushers and temporary fixed screens will be used within the site for primary and

secondary crushing with the equipment located close to the working face at periodic intervals.

- 3.7. The hours of operation are to be as the existing quarry - 0700-1800 Monday to Friday and 0700 to 1400 Saturday.
- 3.8. The quarry currently employs 20 contract hauliers and 22 direct staff.

4.0 **Planning and Regulatory History**

There is an extensive planning and regulatory history on the overall quarry site. Of note:

4.1. **Section 261**

QY12 - An application to register the quarry was received by the Council on 22/12/04. The total area for the quarry given on the application form was stated to be 96.7 ha, with an extraction area of 53.1 ha. The site subject of this application was included within the site boundary. A further information request was issued on 08/06/05. A response was received on 05/07/05 and the planning authority concluded that a planning application and EIS is required.

4.2. **Planning**

Subsequent to the above registration the PA issued a warning letter indicating that a 12.42 ha area included within the registration was considered to be unauthorised.

On foot of same:

RL05-07 – referral as to whether the quarrying of lands contained in Folio No. 25993 (Melody Lands) is or is not exempted development. It was decided in January 2006 that the works were not exempted development.

P06-2560 – Subsequent to the said referral an application was lodged in 2006 for permission to retain and continue quarrying activities including the extraction of rock, processing of aggregates, landscaping, restoration and associated site works on the **03.QD0012**

lands subject of this substitute consent application. An EIS was submitted with the application. Permission was refused for two reasons in August 2012. The reasons related to the planning authority being precluded from considering a grant of permission with due regard to ECJ Case C-215-06 and adverse impact on the qualifying interests of the Lower River Shannon SAC.

P06-2561 – Application for permission for the continuation of quarrying activities on a 39.11 hectare site including the extraction of rock, processing of aggregates, landscaping, restoration and associated site works on the remaining lands as registered was lodged in tandem with P06-2560. An EIS was submitted with the application. Permission was granted in August 2012.

4.3. Enforcement

Enforcement Files 102/257, C03-002, and UD06-029 refer to the overall site.

4.4. Discharge Licence

A discharge licence under the Local Government (Water Pollution) Act 1977 to 2007 was granted under ref. no. WP173 in May 2012 (copy attached in Appendix 1.1 of EIS).

4.5. Section 261A Determination and Decision

The Board on review issued a split decision confirming Clare County Council's determination under subsection 2(a) for part of the overall lands and setting aside of the determination on the remainder. An application for substitute consent accompanied by a remedial EIS and remedial AA, was therefore required for the lands subject of the current application.

4.6. **Application for Substitute Consent**

SU0111 – application for substitute consent for the 12.42 hectares subject of this application accompanied by a rEIS and rNIS was submitted to the Board on the 28/07/14.

5.0 **Planning Policy Context**

5.1. **Clare County Development Plan 2011-2017**

Section 6.11 – Natural Resources

It is an objective to facilitate, encourage and appropriately manage the development of natural resources of the County to ensure that it is done in a sensitive way, eliminating any significant adverse effects on the natural environment.

Sections 8.1, 8.2, 8.3, 9.1 and 9.2 set out objectives for the protection of ground and surface water.

Sections 9.9 and 9.10 set out objectives to protect against noise and air pollution.

Section 13.10 – Minerals, Mining and Quarrying

It is an objective:

(a) To promote the extraction of minerals and aggregates where such activities do not have a significant negative impact on the environment, landscape or residential amenities of neighbouring settlements and where such operations are in compliance with all national regulations and guidelines applicable to quarrying and mining activities;

(b) To map aggregate resources during the lifetime of the Plan in order to positively plan for the extractive industry at appropriate locations.

Section 16.3 – Western Corridor Working Landscapes

It is an objective to:

- (a) Permit development in these areas that will sustain economic activity, enhance social well-being and quality of life – subject to conformity with all other relevant provisions of the Plan and the availability and protection of resources;
- (b) That selection of appropriate sites in the first instance within this landscape, together with considerations of the details of siting and design, are directed towards minimising visual impact.
- (c) That particular regard should be given to avoiding intrusions on scenic routes and on ridges or shorelines.

Sections 17.3 and 17.4 address the protection of Natura 2000 sites and requirements for AA.

Note: Whilst the site is within the area covered by the South Clare LAP 2012-2018 there are no provisions directly relevant to the type of development concerned.

5.2. National Guidelines

The Quarries and Ancillary Activities Guidelines for Planning Authorities (April, 2004) offers guidance to Planning Authorities on planning for the extractive industry through the development plan process and determining applications for planning permission for quarrying and ancillary activities. The following sections are relevant to the current appeal.

- Section 3.4 outlines the potential environmental effects caused by quarrying on water supplies and ground water.
- Section 4.7 sets out possible planning conditions.
- Section 4.9 advises on the life of planning permission.

6.0 Observations

6.1. Prescribed Bodies

- 6.1.1. The **Geological Survey of Ireland** via the Department of Communications, Energy and Natural Resources, in correspondence dated 23/02/16, notes that in relation to section 7.2.3.4 of the EIS the groundwater vulnerability has been classified as extreme throughout the quarry landholding including the north-western corner due to exposed rock as per the GSI latest dataset (2014). The applicant has been notified of this dataset.
- 6.1.2. **Transport Infrastructure Ireland** in a letter dated 22/02/16 states that having regard to the extent of operations presented in the EIS and the location of the quarry operations accessing the local road network prior to accessing the N18, it has no specific comment to make. In the interests of safeguarding the function and safety of the road network in the area, it is recommended that the mitigation measures outlined in Section 12 of the EIS are included as conditions should approval be granted.
- 6.1.3. The **HSE** in a report dated 29/02/16 notes:
- The operating hours of the overall quarry as applied by way of condition 17 of permission P06/2561 should apply to the subject area.
 - The installation of a secondary treatment plant serving welfare facilities on the overall site in December 2014 is noted and is considered to address the previous expressed concerns regarding potential source of coliforms from such facilities.
 - Subject to mitigation measures being implemented for dust emissions it is considered that the continuation of activities will not lead to a nuisance. It is noted that dust monitoring for 2015 showed some results above the limit levels and full implementation of mitigation measures must be carried out at all times and particularly during dry weather.
 - The EIS should identify the measures that have taken place to prevent the proposed activity repeating the noise exceedances recorded during the

operation of the quarry as set out in Table 10.2 of the EIS. The predictive modelling used in the EIS does not predict exceedances of the noise limit levels at noise sensitive locations (table 10.5). However material differences other than the proposed earth berm to screen NSL 4 cannot be identified. The EIS concludes that noise levels in the surrounding environment are predicted to remain nominally similar in character and level to those currently experienced. Clarification is required that if this is the case why there will not be continual exceedances as per the monitoring results reported in the EIS.

- Whilst dewatering is not predicted to have any significant impact if mitigation measures are implemented it is important that the private well is monitored to ensure no adverse impact on the potable water supply occurs.

6.2. Planning Authority's Report

The report states that with the mitigation measures detailed in Section 5 of the NIS and their continued implementation at the site, coupled with the adherence to the requirements of the discharge licence, it is considered that there will be no significant adverse effects on the conservation objectives for the European sites designated within the zone of influence of the site or on the integrity of the European sites in view of the sites' conservation objectives.

6.3. Applicant's Response to Planning Authority's Report

The applicant welcomes the conclusions and considers that it supports the Section 37L application for further development.

7.0 Assessment

I consider that the issues arising in respect of this application for substitute consent can be addressed under the following headings:

- Principle of Development
- Environmental Impact Assessment
- Appropriate Assessment
- Other Issues

Note: An appropriately worded public notice was erected at the site entrance on day of inspection.

7.1. Principle of Development

7.1.1. The limestone resource is a valuable high PSV (polished stone value) rock. The materials extracted are used for maintenance, improvement and new construction schemes on the road network. The quarry also supplies aggregates for a variety of uses including blacktop and concrete blocks. The application site was actively quarried between 1997 and 2006 and operation would have been similar to the ongoing operations in the active section of the quarry. This involves the controlled blasting of rock followed by crushing and screening of the rock to produce various grades of aggregate. Screened and sorted aggregate are loaded onto haulage trucks for transport to the relevant customer. Aggregates from the quarry are also used for the production of blacktop, readymix concrete, concrete blocks and precast concrete products.

7.1.2. The Department's Guidelines for Planning Authorities on Quarries and Ancillary Activities (DoEHLG, 2004) acknowledge that extractive industries make an important contribution to economic development in Ireland but that such operations can give rise to land use and environmental issues which require mitigation and control through the planning system. Concurrently policies of the Clare County Development Plan recognise that aggregates resources contribute significantly to the economic development of the county and facilitate its further development but that

the exploitation of such resources is required to be carried out in a manner that does not adversely impact on the environment, existing infrastructure and the amenity value of neighbouring lands. Within this current policy context, I consider that the principle of development is acceptable on the site, subject to a satisfactory assessment of environmental effects.

7.2. Environmental Impact Assessment

Adequacy of Environmental Impact Statement

7.2.1. I submit that the EIS document which is prepared in the grouped format is generally consistent with the requirements of Article 94 of the Planning and Development Regulations, 2001-2013 (contents of an EIS). A non-technical summary is also included. Whilst a section of the EIS is titled Examination of Alternatives no real assessment of same has been undertaken. But having regard to the particular nature of the development, this is not a significant omission. I acknowledge the established practices in place and, in principle, it is reasonable that the continued operation would seek to replicate same where it comprises efficient and effective exploitation of the natural resource.

7.2.2. I am satisfied that the EIS, taken in conjunction with the other details available including the planning authority's report and observations received, is adequate to enable the Board to carry out an environmental impact assessment and to make an adjudication on this application for approval.

Environmental Impact Assessment

7.2.3. As the competent authority for decision making, the Board is required to carry out an environmental impact assessment of the application for further quarry development ie. to identify, describe and assess the direct and indirect effects of a proposed development, in accordance with Articles 4 to 11 of the EIA Directive, on the following:

- Human beings, flora and fauna,
- Soil, water, air, climate and the landscape,
- Material assets and cultural heritage,
- and the interaction of the foregoing.

7.2.4. The following assessment of environmental effects has regard to the EIS submitted, the information on file and my inspection of the site.

Human Beings

7.2.5. Matters pertaining to soil, water, air quality, noise, landscape and traffic that affect human beings are addressed later in this assessment.

7.2.6. The quarry provides employment for 22 direct staff and c. 20 contract hauliers. Indirect employment relating to suppliers of products and services to the quarry would also arise. The continuing operation will retain such employment. Thus it is not unreasonable to submit that the application site and continuation of extraction would make a positive contribution to economic activity in the area.

Flora and Fauna

7.2.7. The Board is advised that a NIS accompanies the application.

7.2.8. The site of the application has been the subject of previous quarrying activity and thus largely consists of bare ground. As can be extrapolated from the aerial photographs for the area the extraction on the application site commenced in 1996. Section 5.2.4 sets out an assessment of the current habitats on the site and these invariably reflect what would be associated with such a quarry operation that has been stripped of soil and subsoil, any field boundary delineations and rock extracted. The adjoining undeveloped lands comprise of agricultural pasture land divided into fields, separated by hedgerows.

- 7.2.9. The survey work undertaken on the site within the context of the wider quarry site reflects flora and fauna which would be indicative of such use and which would be found elsewhere in the vicinity. The species observed on site would appear to have generally adapted to the level of disturbance arising from the quarry and there is no substantive reason as to why the said species will not continue to do so with the continuing activities. Therefore, no significant adverse impacts on these species are likely to arise.
- 7.2.10. The site is not within or adjacent to any designated European Site or identified as being of specific ecological merit. The Lower River Shannon SAC is located approx. 500 metres east/southeast of the overall landholding. Indirect impacts on European sites are considered in detail later in this assessment.
- 7.2.11. The prevailing environment with exposed rock faces has resulted in Peregrine Falcons being recorded on the western cliff face with the site monitored by the National Parks and Wildlife Local Ranger in recent years. The Peregrine Falcon is listed in Annex 1 of the EC Council Directive on the Conservation of Wild Birds (79/409/EEC). As per section 5.2.5.2 of the EIS information on productivity and the exact location of the nest site is confidential to protect the species but it can be confirmed that the nest site and suitable potential nesting habitat does not occur within the Section 37L Planning Application Area. The said western face is also home to nesting raven. The cliff on which the birds nest is in its final position, as it occurs at the edge of the Bunratty Quarry Landholding and will not be disturbed by future quarrying activities.
- 7.2.12. Noise from quarry operations may have an impact on the species although I note that the species are within a working quarry and appear to have learned to effectively co-exist with the operation and it is reasonable to assume that this would continue.
- 7.2.13. Certain measures with respect to Peregrine Falcons and other nesting birds on the western side of the quarry are in place, namely the monitoring carried out in

March/April each year to confirm bird breeding status and nest locations. This information is then taken into account in planning the operational practices (including blasting) during the nesting season (i.e. egg/hatching stage - late March until the end of May; and as the chicks get bigger - end of May until the end of July). The said mitigation measures appear to be successful therefore no additional measures are considered necessary.

7.2.14. On the basis of the prevailing conditions on site and the information before the Board I would concur with the EIS conclusions that no significant adverse impacts are likely to occur pertaining to flora and fauna as a result of the proposed development (i.e. continuation of quarrying activities) within the Section 37L Planning Application Area within the Bunratty Quarry Landholding.

Soil

7.2.15. Top soil and sub-soils have been removed from the quarry area together with the underlying limestone deposits. Extraction of limestone by blasting and excavators is a permanent and irreversible impact. However, the application site, in itself, is a relatively small area and this permanent loss is unlikely to be significant in terms of the overall reserve. In terms of cumulative impacts the larger quarrying operation of which the site forms part, with a stated extraction area of over 55 hectares, is considered to be large in a local context but, again, in terms of the overall reserve remains small.

7.2.16. In terms of storage all fuel/lubricant stores are outside the site subject of this application adjacent to the existing workshop.

7.2.17. Mitigation measures employed in the larger quarry site are to be extended to the application site with the overall site operated in accordance with an Environmental Management System (EMS) which includes the implementation of a number of best practice measures to ensure that surface water and groundwater does not become

contaminated by pollutants. No residual impacts are anticipated following the continued implementation of the said mitigation measures.

Water

- 7.2.18. In terms of the surface and groundwater regime within the existing receiving environment the following are noted:
- 7.2.19. There are no natural surface water features flowing into or out of the overall quarry site with the nearest surface water feature being the stream that flows parallel to the local road along the roadside frontage into which treated water currently discharges. The Ratty River is located approx. 400 metres south of the quarry.
- 7.2.20. It is stated that the existing water management system on the overall site has been designed for the lifetime of the quarry including the development proposed on the application site. The said system comprises of two areas of standing water within the overall quarry. Firstly the main surface water collection sump with a stated capacity of 40,000m³ at the lowest base of the quarry floor immediately south of the application site to aid the capture of water during wet conditions. The floor level in the sump is approx. -0.8m OD with the water level at approx. 4 mOD. From there water is pumped to the 2nd area which is a series of 5 no. settlement ponds in the south-western corner with a stated capacity of 30,000m³. Pumping from the sump can be controlled should the volume of surface water entering the settlement ponds need to be controlled. Treated water from these ponds is discharged into the small, unnamed stream along the roadside for which discharge license ref. no. WP173 refers (Appendix 1.1). Water is not constantly discharged but is recirculated and used for washing purposes, dust suppression and wheel wash. A flow meter has been installed at the discharge point from the settlement ponds with a hydrocarbon interceptor installed at the final discharge point near the quarry entrance.

- 7.2.21. Subsequent to the discharge point the unnamed stream flows in a southerly direction across the smaller Bunratty quarry landholding on the opposite side of the road through an area that contains a natural occurring red bed which allows for further removal of suspended solids from the treated surface water. From here the treated surface water discharges into approx. 1.36km long level drainage ditch with no significant flow before ultimately draining into the Upper Shannon Estuary which is a European Site. The Upper Shannon Estuary Transitional Water Body downstream of the quarry into which the surface waters discharge has an 'unpolluted status'.
- 7.2.22. In terms of volumetric discharge condition 2.1 of the licence requires that the maximum volume of discharge shall not exceed 10 litres per second subject to a normal discharge volume of 600 cubic metres and a maximum discharge in any one day of not more than 3456 cubic metres. Table 7.8 sets out the surface water monitoring results at the water discharge point for 2014 and 2015. Exceedances were recorded in 7 out of the 84 Total Suspended Solids results and 11 of the 84 Ammonia results with the other parameters measured within the specified limits.
- 7.2.23. In terms of groundwater the area below the quarry is designated as a Locally Important Aquifer which is generally Moderately Productive only in Local Zones. No karst features are identified within the landholding with the nearest being c. 5.5km to the north-west. In terms of aquifer vulnerability and, as confirmed by the GSI in its submission to the Board, the quarry is underlain by designated extreme vulnerability in its entirety due to the exposure of bedrock at the surface. The north-western corner which, as per section 7.2.3.4 of the EIS, was classified as high is also now designated 'extreme'.
- 7.2.24. In terms of groundwater quality, sampling to provide for a baseline dataset dating back to 2006 has been conducted with the results meeting the relevant parameters save for coliforms, sulphate, and potassium. The latter two are likely to be associated with mineralisation of the bedrock in the area with the first attributed to

waste water disposal shortcomings on the site which is considered to be have been addressed by the installation of the new proprietary treatment system in 2014.

- 7.2.25. In addition to the well on site a total of 9 no. recorded of groundwater abstractions are identified within 2km of the site with the closest (BH3, BH4, BH6 and BH8) between 75-150 metres of the overall site boundary.
- 7.2.26. To date activities on the overall site have not breached the watertable with extraction to date at approx. 8-10m OD.
- 7.2.27. The substantive work on hydrology and hydrogeology as presented in section 7 of the EIS was prepared prior to and during the assessment of the application for the continuation of the quarry activity on the site consequent to Section 261 under file reference 06/2561 over a stated area of 39.11 hectares. The assessment was effectively over a six year period with the response to the clarification of FI, which included hydrological and hydrogeological detail, submitted in 2008 and 2012. Whilst the said application did not refer to the site subject of this application the work undertaken pertained to the larger site in which this site forms part.
- 7.2.28. Hydraulic (pumping) testing was carried out prior to planning application 06/3561 with a monitoring observation well located within the current application area. Details of the Calibration Test and Constant Rate Tests 1 and 2 undertaken are detailed in Section 7.2.3.8.3 of the EIS.
- 7.2.29. The groundwater table levels averages at approximately 3.5m to 10.6m OD across the current quarry floor which is approximately 43.5 to 50.6 metres above the proposed final floor level. Therefore groundwater dewatering will be required within both the Active Quarry Area and the Section 37L Planning Application Area from Phase 4 onwards. Table 7.16 of the EIS sets out the dewatering volumes estimated for phases 4-6 with the maximum estimated during phase 6 at 182.53 m³ day.

7.2.30. 7 day pumping of groundwater from the production/pumping well PW1, which is an area where the most productive fracture and highest inflow was recorded during the 2006 Hydraulic Test, resulted in no lowering of the groundwater in the monitoring/observation wells which supports the conclusion that there appears to be little connectivity between same. Thus the radius of influence is calculated as not to extend beyond the active quarry area and application site. A 2nd permanent groundwater level monitoring borehole has been provided to the north of the application site at the overall site boundary following the requirements of condition 23 attached to the permission granted under reference 06/2561 which will provide information on any fluctuations to the north of the extraction area.

7.2.31. The dewatering programme proposes that when the groundwater table is intercepted, any groundwater encountered will be firstly diverted to the Surface Water Collection Sump, which is located in the northeast of the Active Quarry Area with adequate sump capacity available. From here, the water will be pumped to the Settlement Ponds, which are located in the southeast of the Active Quarry Area. In view of the relatively small levels of groundwater anticipated they are considered to be adequate in terms of capacity to accommodate the additional flow. The Settlement Ponds are designed for the removal of suspended solids from the surface water, prior to its discharge from the site, via a Hydrocarbon Interceptor, as shown on EIS Figure 7.2. The limits as specified in the discharge licence will be required to be met and any deviation from same will require the licence to be revisited. The flow meter readings at discharge from the settlement ponds recorded since April 2014 as set out in Table 7.2 are all materially within the licence parameters of (10 litres/sec, 600m³/hour, 3465m³/day).

7.2.32. I consider that it is appropriate that the established monitoring regime and the incorporation of industry best practice in terms of mitigation to protect surface and ground water in addition to the specific requirements as set out in conditions

attached to file reference 06/2561 including the requirements in terms of remedial action in terms of other groundwater users be replicated in this instance.

7.2.33. I consider that there is sufficient information available with regard to water management and that the systems in place are capable of accommodating the proposed continuation of activity on the application site including additional flows following dewatering from phase 4 onwards. I would therefore concur with the EIS conclusions that subject to the strict implementation of the identified mitigation measures that the proposal would not have an adverse impact on the surface and groundwater environment.

Air

7.2.34. As stated previously whilst located in proximity to the village of Bunratty the site is outside the village's 50 kph speed limit. There are a number of dwellings in the vicinity, predominately located along the county road to the east and north-east. There is current construction activity in terms of new house build along this local road.

7.2.35. The main emissions to air arising from the quarry are dust and noise. As per the details available in the rEIS accompanying file ref. SU111 dust monitoring has been carried out on the overall site dating back to 2001 with details for the last two years provided in Table 9.1 in the EIS accompanying this application. Monitoring is carried out at 9 points around the site perimeter as delineated on Figure 9.1. Dust Monitoring Location 'D' is located at the most north westerly tip of the Bunratty Landholding, which is also the most north westerly tip of the Section 37L Planning Application Area with locations 'F' and 'I' the nearest along the local road to the east reflective of the location of the nearest dwellings.

7.2.36. As is evident from the Table there have been a number of exceedances of the 350mg/m²/day recommended limit which is said to represent a typical period of

quarry activity. In this regard I note the exceedances at the monitoring locations along the eastern boundary closest to the nearest dwellings and especially those as identified above closest to the application site when work on the said site was not ongoing. 7 of the 21 exceedances over the 2 year period were recorded at monitoring points E, F J and I. It is stated that a review of the dust control measures is carried out after the recorded exceedences but the EIS is silent on why such exceedances arise save to say that the review seeks to ensure that the controls in place are effective and are strictly enforced to ensure that dust emissions at the site and surrounding area remain below the compliance threshold limit of 350mg/m²/day.

7.2.37. It is expected that the emissions from the continuation of the quarry activity on the application site will be comparable to those already recorded. Thus the potential for exceedances is a reality. In terms of sensitive locations I note the number of dwellings to the north-east of the site and the direction of the prevailing wind from the south-west.

7.2.38. The measures employed at the site in terms of dust minimisation as set out in section 9.4 of the EIS are comparable to those found in other quarry development and represent industry best practise. They have obviously fallen short at times in the 2014-2015 period. However I submit that the number of exceedances to date could be considered small. 21 no. of the 164 no. recorded results equates to 13%, with those recorded at the monitoring locations along the eastern boundary (7 of 164) equating to 4%. The ongoing implementation of the necessary mitigation measures, coupled with the screening that will be provided by the deepening quarry floor, should ensure that any exceedances that arise would be minimal. A condition comparable to no.19 attached to P06/2561 allowing the PA to require changes to the dust suppression programme should they be required following an annual review is recommended in this instance.

7.2.39. In terms of noise the area subject of the application is rural in character, albeit in the context of the overall quarry site and traffic noise from the N18 to the west. As with dust and as extrapolated from the rEIS accompanying file SU111 noise monitoring has been carried out since 2001 on a bi-annual basis. Since the grant of permission for continuation of operations to the south of the application site in 2012, noise monitoring has been undertaken on a quarterly basis in compliance with Condition 16(c). Monitoring is undertaken at 6 No. monitoring locations at the site boundary and nearest noise sensitive locations, during the daytime operational hours of the quarry. As with dust the sensitive locations are along the local road to the east. Table 10.2 sets out the results with exceedances at 4 of the 6 locations recorded on one date 22/10/14. In all but one location the exceedances were attributable to factors outside of the quarry with the fourth attributed to a drilling machine accentuated by the wind direction.

7.2.40. A noise model was developed using the ground topographical mapping, OS mapping and the noise generating activities in the quarry. Noise levels associated with the 6 No. extraction phases were modelled taking account of the extraction plans proposed for each phase. The worst case scenario was assessed in which it was assumed that all quarry activities were taken to operate together simultaneously at the closest boundaries to the nearest noise sensitive locations NSL 1 to NSL 4 (Figure 10.1 indicated the location of these modelled locations). As would be expected the results of the assessment has indicated that highest noise levels are likely to occur during the early extraction phase when quarrying activities are taking place at upper ground levels. During the Phase 1 extraction phase, noise levels at NSL4 to the mid-east of the site are predicted to be 60dB LAeq T which exceeds the daytime noise criterion of 55dB LAeq,T. Mitigation measures shall be required to reduce noise emissions during this phase along this boundary. An earthen berm along a section of the eastern boundary (to south east of application site) constructed to be at least 3m above the ground level along this boundary (typically to a total ground height of 62m OD) is recommended. See Figure 10.2. With the

berm in place the noise levels at the nearest noise sensitive locations do not exceed the stated parameters with Table 10.10 presenting the residual calculated noise levels at the nearest noise sensitive locations. Should the Board be disposed to a favourable decision a condition stipulating the timescale for the construction of the berm is appropriate in the interests of clarity.

7.2.41. The other cited mitigation measures reflect industry best practice. Noise levels will generally reduce in line with the progression of the extraction phases to lower ground levels, where there will be more screening afforded by the cliff faces.

7.2.42. The EIS also assesses the impact of traffic on noise levels on the surrounding environment for the 2014 and 2030. Traffic noise levels on the Old Ennis Road are expected to increase by the order of 4 to 5dB LAeq, 1hr between those experienced during normal peak hours and those associated with peak extraction phase of the quarry. The magnitude of change in noise levels calculated between existing peak hour flows and those associated with the future peak extraction phase is considered to be minor to moderate.

7.2.43. As with noise vibration, notably that arising from blasting on the larger site, is governed by condition 18 attached to permission ref. P06/2561. Whilst the issue of exceedances of the peak velocity maximum of 12mm/second and 125dB (Lin) air overpressure maximum value was noted in SU0111 (see paragraphs 11.39 -11.42) the details provided for the blasts carried out consequent to the said permission as set out (15 up to the time of writing the results of which are set out in Appendix 10.1) do not exceed the limits.

7.2.44. During the 2006 application under ref. P06/2560 the impact of the proposed works on the Clonmoney Reservoir c. 95 metres to the north of the overall landholding was assessed. A number of studies were undertaken including a geophysical survey, structural survey and a drop test were undertaken which concluded that there was no evidence of any negative impact on the structure. The structure of the Reservoir

is currently fit for purpose and there are no signs of structural deficiencies.

Furthermore, the buried nature of the structure will limit the impact of blasting. The impacts of future blasting can be minimised by good blasting techniques and controls. A permanent blast monitoring station has been placed at the reservoir following the grant of permission on file 06/2561 with the results as detailed above.

7.2.45. The frequency of blasting will be no greater than once per week, in line with the existing planning conditions set for the quarry area to the south of the application site. However I note that the planning authority have provided a more generous window for blasting, namely between 0700 and 1800 than normally considered by the Board (between 1000 and 1700). In order to protect the amenities of adjoining property I consider that the latter timeframe to be more appropriate. Again the measures to be employed with regards blasting activities are in line with industry best practice.

7.2.46. On balance having regard to the maintenance of the necessary parameters in terms of dust, noise, and vibration with the stipulated mitigation measures to be employed and the successive deepening of the quarry floor through excavation works I am satisfied that the impacts arising from the continued operation of the application site within the context of the larger quarry complex would have a minor impact on the surrounding prevailing environmental and residential amenity. In this regard the extent of one off housing coupled with the current house construction noted along the local road to the east would suggest that the presence of the quarry is not a deterrent in terms of the perceived amenities of the area.

7.2.47. In terms of climate the continuation of the quarry activity on the application site coupled with the activities on the larger site, whilst giving rise to emissions of greenhouse gases to the atmosphere, primarily from the operation of plant and vehicles, these would not be significant locally.

Landscape

- 7.2.48. Contrary to the assertion made in section 11.2.8 I submit that as per the current Clare County Development Plan the site is within the Western Corridor Working Landscape (defined as 10km either side of the N18/M18) and not the Shannon Estuary Working Landscape. Development is permitted in such areas that will sustain economic activity and enhance social well being. In terms of visual considerations the relevant development plan objective requires that particular regard be had to avoiding intrusions on scenic routes and on ridges or shorelines. Sites should avoid visually prominent locations and avail of the topography and vegetation to reduce visibility from scenic routes, walking trails, public amenities and roads.
- 7.2.49. The quarry lies within a largely agricultural area characterised by medium to large fields punctuated by hedgerow boundaries. It is located along the west of a ridgeline within an area of higher ground. The surrounding landscape falls down to 10m AOD within the relatively flat floodplains of the Owenogarney or Ratty River and the Shannon Estuary to the east and south. The site boundaries to the south and south-east are densely planted with mixed coniferous and broadleaved trees whilst the road side vegetation is mainly mature hedgerows of varying density and height which restrict views into the site. The west of the site is bordered by pastureland and dense scrub and tall roadside vegetation along the N18.
- 7.2.50. The quarry void has substantially altered the landform of the local area. It cuts into the base of the rising topography resulting in higher faces on the west, north and east boundaries. However, views of the void and buildings on the site are limited as a consequence of topography and vegetation. As noted in the EIS there is one open view of the quarry along the R471 west of the site at an overbridge over the N18 but this is limited to the winter months when foliage is sparse.
- 7.2.51. There are two scenic routes in the vicinity both to the east of the quarry site namely SR22 – from Brickhill Bridge north east to road junction at Raesksamoge and SR23

– road from Cratloe north east through Gallows Hill to Glennagross. However neither the application site or the larger operation of which it forms part impinges on same. Concurrently I note that views of the quarry from Bunratty castle are screened.

7.2.52. Essentially the vertical extension of the application site would not have a significant impact in visual terms over that existing. I would consider that landscape impacts as a result of the continuing operation of the quarry are locally significant but the visual impacts are not.

7.2.53. The restoration proposals for the application site differ from those as proposed on file reference SU0111 and now entails proposals for the entire quarry site (see drawing no. 7496-2020 which shows the application site only). The quarry floor will be flooded and left for natural re-colonisation with additional screening planting to existing and proposed screening berms. The said proposals are considered to be appropriate.

Material Assets

7.2.54. Key local resources which are intrinsic to the application site include agricultural land, the stone resource which is being worked and the road infrastructure in the vicinity. Given the size of the application site and the vertical rather than lateral expansion of the works no direct impact on agriculture will arise.

7.2.55. Whilst in proximity to Bunratty Castle and Folk Park the most recent visitor figures as recorded by Failte Ireland would suggest that the overall quarry operation is not having a negative impact on same and that the continuation of the activity within the application site would have no further impact. As noted above the quarry is not visible from the Castle and Folk Park.

- 7.2.56. In terms of transport the assessment evaluates the traffic to be generated as a result of the overall quarry site.
- 7.2.57. Access is from local road L3211 known locally as the Old Ennis to Limerick Road along which the 80 kph speed limit applies with signage on approach to the entrance indicating the quarry site. It serves local traffic with through traffic largely removed following the opening of the N18 in the 1990's.
- 7.2.58. Whilst calculations are based on a traffic survey carried out in October 2014 it is acknowledged that this does not represent the peak levels which were experienced at the site during the 2000's in line with the economic boom. Section 12.3.1.4 of the EIS notes that comparison of weighbridge data shows that 2006 annual traffic levels were 3.5 times higher than 2014 annual traffic volumes (see Appendix 12.4). This equated to 68 HGVs and 19 LVs in the AM peak and 61 HGVs and 33 LVs in the PM peak. I note that these figures are somewhat lower than those cited in section 12.3 of the rEIS accompanying SU0211 (79 HGVs and 33 LVs). As the site is c.400 metres from the slip road of the N18 Galway to Limerick dual carriageway a significant proportion of traffic use this route.
- 7.2.59. Taking into consideration the conclusions to section 12 of the EIS extraction rates from the entire quarry complex including the application site are not to exceed the peak extraction rates as recorded in 2006. I submit that the use of the 2014 traffic count to determine background traffic baseline flows coupled with the 2006 daily traffic profiles, is a robust approach with the Picady Analysis showing that the three junctions assessed will operate within capacity whilst the road link capacity assessment showing the L3122 also operating within capacity for the design years.
- 7.2.60. The local road serving the site is of a reasonable scale and condition with the N18 slip roads resurfaced as part of the N18 resurfacing scheme. Sightlines are somewhat restricted to the east. Currently a visibility splay of 3.0m x 100 metres is achievable. A visibility requirement of 3.0m x 160 m for a design speed of 85kph is

required in accordance with NRA DMRB TD41-42. It is stated that the required visibility to the centre line can be achieved when maintenance/cutting back of vegetation is undertaken. Other mitigation measures include the installation of a stop sign and renewal of road markings at the quarry entrance.

7.2.61. Improvements to visibility at the junction of the L3122/2-Way Link Road to N18/Garage to the east of the site are recommended but it is noted that the remit for same falls to the County Council.

7.2.62. It is my opinion that the assessment provided is robust in that it assessed the impact of the overall quarry development inclusive of the application site at a peak production level comparable to that as recorded in 2006. I note that the NRA in its submission on the application did not have any specific comment on the development whilst the Planning Authority did not express any reservations. I therefore accept the conclusions that the anticipated traffic generated by the overall quarry site would not result in any significant environmental impacts for the wider community, that it would not adversely affect the carrying capacity of the local or national road network involved and would not cause significant traffic and transportation impacts for other road users.

Cultural Heritage

7.2.63. No recorded monuments lie within the site or in close proximity to it. In addition there are no protected structures in the vicinity. As noted above the site is at a remove and not visible from Bunratty Castle.

7.2.64. As noted the application site has been extracted to geological levels. As the continuation of the quarry activity within the application site entails vertical rather than lateral expansion the potential for undocumented sub-surface archaeological features and material would not arise.

7.2.65. I would therefore accept the view that the quarry operation will not have an impact on cultural heritage.

Interaction of the Foregoing

7.2.66. The main interactive impacts arising from the operation of the quarry are:

- Human beings, landscape, noise, dust, material assets and traffic related impacts.
- Flora & Fauna, Soils & geology and water

The relevant sections of the EIS effectively address the issue of cumulative impacts in terms of the working of the application site and the larger quarry operation with the main areas of concern relating to the effects of the extraction works on hydrology and hydrogeology and the interaction with soils and geology and surface water processes, and on the landscape. The inter-relationship between flora and fauna, soils and geology and water has been discussed above under the 'Flora and Fauna' in which it is noted that the extraction has resulted in an environment that has provided an environment conducive for nesting peregrine falcons. Also the proximity of residential property and the impacts arising from noise, vibration and dust are noted to be of particular concern and in which it was noted that exceedances of acceptable limits did arise in the past. No doubt the presence had and will continue to have an impact on the local area this impact would not be considered to be significant subject to the implementation of mitigation measures proposed.

7.2.67. I know of no other notable development existing or proposed with which cumulative impacts may result that would culminate in any significant environmental effects arising.

Environmental Impact Assessment Conclusion

7.2.68. This application involves an extension to an existing quarry whereby the location and nature of the proposed activity would be similar to that which already occurs,

although its intensity would be increased somewhat. The predictions of the likely effects of the proposed development can therefore be informed from monitoring results of the existing quarry and the studies already conducted for the continuation of quarrying activities granted permission under reference 06/2561. This increases the reliability of the predictions set out in the EIS, which are largely accepted by this assessment.

7.3. Appropriate Assessment

7.3.1. This section of the report considers the likely significant effects of the proposal on the relevant European sites in view of the Conservation Objectives, with each of the potential significant effects assessed in respect of each of the Natura 2000 sites considered to be at risk and the significance of same. A Natura Impact Assessment accompanies the application.

Description of the Project and Site Characteristics

7.3.2. The site and project are as described in sections 2 and 3 above.

Natura 2000 sites

7.3.3. The following European Sites are within 15km of the site

Site	Designation	Approx. Distance from Application Site (km)
Lower River Shannon (2165)	SAC	0.5
River Shannon & Fergus Estuaries (4077)	SPA	0.6
Ratty River Cave (2316)	SAC	6.8
Lough Gash Turlough (0051)	SAC	6.8
Askeaton Fen Complex (2279)	SAC	8.7
Curraghchase Woods (0174)	SAC	9.5

Kilkishen House (2319)	SAC	11
Poulnagordon Cave (Quin) (0064)	SAC	11.6
Danes Hole, Poulnalecka (0030)	SAC	11.6
Old Domestic Building, (Keevagh) (2010)	SAC	14

7.3.4. Potential impacts arising from the continuation of the quarrying activity relate to changes in ground and surface water flows associated with the proposed works below the water table, disturbance to species arising from the activity arising from noise and loss of habitat.

7.3.5. In the context of the qualifying interests and conservation objectives of the above sites, the extent of existing and permitted quarrying activity on the larger site and the separation distances between the site and the said designated sites I am satisfied with the screening process undertaken by the applicant in the NIS and that the only site potentially linked to possible effects associated with the quarry is the Lower Shannon SAC. The said designated site is linked to the treated surface water drainage from the quarry via an unnamed stream and drainage ditch. The quarry is also within the catchment of the River Shannon (Shannon Estuary North sub-basin).

7.3.6. As the crow flies the overall quarry site is approx. 500 metres from the nearest point of the Lower River Shannon SAC with the site to which this application refers being c.1.4km distant. The qualifying interests of the SAC are as follows:

- Freshwater pearl mussel
- Sea lamprey
- Brook lamprey
- River lamprey
- Salmon
- Sandbanks which are slightly covered by sea water all the time
- Estuaries

- Mudflats and sandflats not covered by seawater at low tide
- Coastal lagoons
- Large shallow inlets and bays
- Reefs
- Perennial vegetation of stony banks
- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Salicornia and other annuals colonizing mud and sand
- Spartina swards
- Atlantic salt meadows
- Bottle-nosed dolphin
- Otter
- Mediterranean salt meadows
- Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachium vegetation
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior

7.3.7. A copy of the detailed conservation objectives for the site are set out in full and are attached to the Inspector's report on file SU0111, the overall aim being to maintain or restore the favourable conservation status of habitats and species of community interest. Maps 1-17 delineate areas of qualifying interests.

Potential Effects

7.3.8. As the quarry is at a remove from the Natura 2000 site no direct impacts will occur. As noted in the NIS the key element is the treated surface water discharge to the unnamed stream to the south especially the potential for possible siltation and other pollutants.

7.3.9. The existing water management system on site is to be continued. Water arising from the continued operation of the site including the dewatering necessary in the later phases is to be directed to the surface water collection sump. From here the

water is pumped to settlement ponds which are located in the south-eastern corner of the overall quarry site. The settlement ponds are designed for the removal of suspended solids from the surface water, prior to its discharge. As noted above the treated surface water discharges from the settlement ponds to an unnamed stream which flows in an easterly direction and then in a southerly direction into the site on the opposite side of the road. This area contains a naturally occurring reed bed which discharges into c. 1.36km long level drainage ditches with no significant flow before draining into the designated sections of the River Shannon Estuary. The said discharge is under licence reference number WP173 which details both the volume and quality parameters for the discharge.

7.3.10. Field assessments undertaken in 2011 and 2014 noted that the drainage ditch which drains the naturally occurring reed bed downstream of the discharge point had typical habitat comprising dense willow, scrub and reed. The drainage ditch habitat has no significant regular flow with wetland plants providing a treatment process which further removes sediment out of solution. The ditch then crosses agricultural farmland before crossing the N18. At this point the receiving water in the drainage ditch is relatively clear and contains expected invertebrate and plant species. Macro-invertebrate species noted at this location include typical wet ditch fauna. These observations support the view that no significant localised water quality impacts are arising from the existing discharge.

7.3.11. Based on the identified potential impact from the development, namely water pollution, the key sensitive species are considered to be Sea Lamprey, Brook Lamprey, River Lamprey and Atlantic Salmon. None of these species spawn in the Shannon Estuary and it is an area that the species pass through between spawning and feeding areas. In this regard they are not particularly sensitive to general background pollution levels in the estuary which are low in any case.

- 7.3.12. By reason of the fact that the proposed development forms part of and is a natural extension to the existing quarry site the cumulative impact of the development with the existing quarry is effectively addressed in the assessment. I am not aware of any other plans and projects in the area to be considered in this context.
- 7.3.13. The mitigation measures as set out in section 5 of the NIS which are in place in the existing quarry are measures associated with best practice for such type development including design of sump and settlement ponds, installation of wheel wash, storage of fuel in bunded tanks, storage of chemicals, management of overburden to prevent organic material or silt/clay from entering the surface water at source and dust minimisation measures.
- 7.3.14. Given the distance between the discharge point and the European Site, the dilution and drainage capacity to accept surface discharge and the control of discharge by licence from this quarry which includes the application site I accept that it is reasonable to conclude that that the risk of adverse impact on the Lower River Shannon SAC could reasonably be deemed to be low.

Appropriate Assessment – Conclusion

- 7.3.15. I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the European Site No. 002165, or any other European site, in view of the site's Conservation Objectives.

7.4. Other Issues

- 7.4.1. No detail is provided in the documentation accompanying the application as to the duration of activity on the application site. I consider that to allow a permission unfettered by a stipulated timescale is not appropriate. Having regard to condition

2 attached to the permission governing the extraction on the other part of the quarry site stipulating a period of 20 years and in striving for consistency I consider that such a duration should be applied in this instance. Such a period is generous and exceeds the duration of any development plan for the area. On expiration of the period a reassessment of the proposal can be undertaken in light of the policy consideration that would pertain.

7.4.2. I also recommend that due cognisance is had to the nature and wording of the conditions attached to existing permission ref. 06/2561 to allow for a level of consistency. Whilst such an approach would assist the quarry owner/operator it would also assist the local authority and other relevant agencies in policing the activity. I note that condition 5 attached to the said permission requires extraction to be set back from the site boundary and recommend that such a stipulation be reiterated in this instance.

7.4.3. As per Table 5.2.3 of the Clare County Development Contribution Scheme a levy is applicable for quarry development and is calculated per hectare. The proposal is effectively for the vertical rather than lateral extension of the quarry in terms of its continuation. I note that a comparable scenario applied on planning reference case 06/2561 on which a financial contribution was applied. On foot of an appeal the Board decided that the scheme was properly applied and directed the Planning Authority to attach the relevant condition (condition 28). Therefore a condition requiring a contribution for the area subject of this application is appropriate.

8.0 **Conclusions and Recommendation**

In conclusion, having regard to the documentation on file, the submissions received, a site inspection and the assessment above I recommend that permission for further quarry development be granted subject to conditions in accordance with the following **Draft Order**:

REASONS AND CONSIDERATIONS

In making its decision the Board had regard, inter alia, to the following:

- (a) the provisions of the Planning and Development Act, 2000, as amended, and in particular Section 37L,
- (b) the 'Quarry and Ancillary Activities, Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in April 2004,
- (c) the provisions of the Clare County Development Plan, 2011-2017,
- (d) the Environmental Impact Statement and Natura Impact Statement submitted with the application for further development,
- (e) the report and the opinion of the planning authority under section 37L(12)(a) of the 2000 Act, as amended,
- (f) the submissions made in accordance with regulations made under Article 270 of the Planning and Development (Amendment) (No. 2) Regulations 2015,
- (g) the report of the Board's Inspector, including in relation to potential significant effects on the environment,
- (h) the planning history of the site,
- (i) the pattern of development in the area,
- (j) the nature and scale of the development the subject of this application for further development, and
- (k) the decision by An Bord Pleanála to grant substitute consent in respect of part of the subject quarry under reference number 09.SU111

Appropriate Assessment

The Board noted that the proposed development is not directly connected with or necessary to the management of a European Site. Having regard to the nature, scale and extent of the subject development, the Natura Impact Statement submitted with the application and the mitigation measures contained therein, the submissions on file and the Inspector's assessment, the Board completed an Appropriate Assessment of the effects of the development on nearby Natura 2000 sites. The Board concluded that, on the basis of the information available, the subject development, either individually or in combination with other plans or projects, would not adversely affect the integrity of European Site No. 2165 or any other European site, in view of the site's Conservation Objectives.

Environmental Impact Assessment

The Board considered that the Environmental Impact Statement submitted with the application, the report, assessment and conclusions of the Inspector with regard to this file and other submissions on file, was adequate in identifying and describing the direct and indirect effects of the proposed development. The Board completed an environmental impact assessment, and agreed with the Inspector in her assessment of the likely significant effects of the proposed development, and agreed with her conclusions on the acceptability of the mitigation measures proposed and residual effects. The Board adopted the report of the Inspector. The Board concluded that, subject to the implementation of the mitigation measures proposed, the proposed development would not be likely to have adverse impacts on the environment and subject to the following conditions, the effect of the proposed development on the environment would be acceptable and would be in accordance with the proper planning and sustainable development of the area.

Conditions

1.
 - (a) The development shall be carried out and completed in accordance with the plans and particulars lodged with the application submitted to An Bord Pleanála on the 23th day of December, 2016 including the mitigation measures described in the Environmental Impact Statement, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.
 - (b) This permission relates to the proposed deepening of the existing levels within the already quarried area outlined in red on submitted drawings. This permission to further develop the quarry does not authorise any quarrying outside the area outlined in red on submitted drawings.

Reason: In the interest of clarity and to delimit the extent of the development hereby permitted.

2. This grant of permission to further develop the quarry shall be for a period of 20 years from the date of this order. The site restoration works described in the EIS shall be completed within 2 years of the cessation of quarrying on the site.

Reason: To enable the effects of the development to be reassessed in the light of the operation of the permission to further develop the quarry and the circumstances then obtaining.

3. A 30 metre buffer zone shall be maintained between the extraction area and the site boundaries. Within four months from the date of this order details of all boundaries of the site shall be submitted to the planning authority for written agreement.

Reason: In the interests of preserving the integrity of adjacent lands and public safety

4. The development shall be operated and managed in accordance with an Environmental Management System (EMS), which shall be submitted by the developer to, and agreed in writing with, the planning authority prior to re-commencement of development. This shall include inter alia:
 - (a) Proposals for the suppression of on-site noise;
 - (b) Proposals for the on-going monitoring of sound emissions at dwellings in the vicinity;
 - (c) Proposals for the suppression of dust on site;
 - (d) Management of all landscaping;
 - (e) Monitoring of ground and surface water quality, levels and discharges;

Reason: In order to safeguard local amenities

5.
 - (a) On an annual basis, for the lifetime of the facility (within two months of each year end), the developer shall submit to the planning authority five copies of an environmental audit. Independent environmental auditors approved in writing by the planning authority shall carry out this audit. This audit shall be carried out at the expense of the developer and shall be made available for public inspection at the offices of the planning authority and at such other locations as may be agreed in writing with the authority. This report inter alia should include:

- i. A written record derived from the on-site weighbridge of the quantity of material leaving the site. This quantity shall be specified in tonnes.
 - ii. An annual topographical survey carried out by an independent qualified surveyor approved in writing by the planning authority. This survey shall show all areas excavated and restored. On the basis of this a full materials balance shall be provided to the planning authority.
 - iii. An aerial photograph which adequately enables the planning authority to assess the progress of the phases of extraction. The photograph shall be updated at least every three years
 - iv. A record of groundwater levels measured at monthly intervals.
 - v. A written record of all complaints, including actions taken in response to each complaint.
- (b) In addition to this annual audit, the developer shall submit quarterly reports with full records of dust monitoring, noise monitoring, surface water quality monitoring, and groundwater monitoring. Details of such information shall be agreed in writing with the planning authority. Notwithstanding this requirement, all incidents where levels of noise or dust exceed specified levels shall be notified to the planning authority within two working days. Incidents of surface or groundwater pollution or incidents that may result in groundwater pollution, shall be notified to the planning authority without delay.
- (c) Following submission of the audit or of such reports, or where such incidents occur, the developer shall comply with any requirements that the planning authority may impose in writing in order to bring the development in compliance with the conditions of this permission.

Reason: In the interest of protecting residential amenities and ensuring a

sustainable use of non-renewable resources.

6. All activities occurring within the site to which this permission refers, shall only operate between 0700 hours and 1800 hours, Monday to Friday and between 0700 hours and 1400 hours on Saturdays. No activity shall take place outside these hours or on Sundays or public holidays. No rock-breaking activity shall be undertaken within any part of the site before 0800 hours on any day.

Reason: In order to regulate and control the development and to safeguard the amenities of the area.

7.
 - (a) Water levels in the groundwater monitoring wells installed around the site shall be recorded every month. A log of these levels shall be submitted to the planning authority on a quarterly basis.
 - (b) An alternative water supply shall be made available by the developer, at his expense, immediately it becomes evident from the monitoring programme that the quality or quantity of water in the vicinity is being adversely affected. Alternative water supplies may be secured by the deepening of private wells, drilling of new wells or other such alternatives as may be specified by the planning authority.

Reason: To protect and monitor groundwater in the vicinity of the site.

8. Full details and location of the eastern berm to be constructed along the eastern site boundary as detailed on Figure 10.2 in the Environmental Impact Statement received by the Board on the 23rd day of December, 2015 shall be submitted to the planning authority for written agreement

within four months of the date of this order. The said earthen berm shall be constructed prior to re-commencement of development.

Reason: In the interests of protecting the amenities of property in the vicinity

9. (a) Free-field noise levels attributable to the operation of the entire quarry complex, when measured at the nearest noise sensitive locations, shall not exceed 55 dB(A) Leq, 1h during permitted operating hours and shall not exceed 45 dB(A) Leq, 15 min at any other time.
- (b) Notwithstanding (a) above, where any temporary quarry activity is expected to exceed the noise limits above, this shall be notified in advance to the planning authority, and to residents in the vicinity, indicating the reason for such activity, and its likely duration. No such exceedence of noise limits shall occur without the prior written agreement of the planning authority.
- (c) A noise survey and assessment programme shall be undertaken to assess the impact of noise emissions arising from the operation of the entire quarry complex. The scope and methodology of this survey and assessment programme shall be submitted to, and agreed in writing with, the planning authority prior to recommencement of any quarrying works on the site. The results obtained from the programme shall be submitted for review annually to the planning authority. The developer shall carry out any amendments to the programme required by the planning authority, following this review.

Reason: In order to protect the amenities of property in the vicinity

10. (a) Blasting operations shall not occur more than once a week and shall take place only between 1000 hours and 1700 hours, Monday to Friday, and shall not take place on Saturdays, Sundays or public holidays. Monitoring of the noise and vibration arising from blasting and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.
- (b) Prior to the firing of any blast, the developer shall give notice of his intention to the occupiers of all dwellings within 600 metres of the site. An audible alarm for a minimum period of one minute shall be sounded. This alarm shall be of sufficient power to be heard at all such dwellings.

Reason: In the interest of public safety and residential amenity

11. (a) Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).
- (b) A monitoring programme, which shall include reviews to be undertaken at annual intervals, shall be developed to assess the impact of quarry blasts. Details of this programme shall be submitted to, and agreed in writing with, the planning authority

prior to re-commencement of any quarrying works on the site. This programme shall be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

Reason: To protect the residential amenity of property in the vicinity

12. (a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement date and the frequency of monitoring results, and details of all dust suppression measures.
- (b) A monthly survey and monitoring programme of dust and particulate emissions shall be undertaken to provide for compliance with these limits. Details of this programme, including the location of dust monitoring stations, and details of dust suppression measures to be carried out within the site, shall be submitted to, and agreed in writing with, the planning authority prior to recommencement of any quarrying works on the site. This programme shall include an annual review of all dust monitoring data, to be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this

annual review.

Reason: To control dust emissions arising from the development and in the interest of the amenity of the area.

13. Scrap metal and other waste material shall be removed at least [annually] from the site in accordance with the written requirements of the planning authority. Such materials shall be deemed to include scrapped trucks, other scrapped vehicles, empty oil barrels, broken or otherwise unusable truck bodies, worn out conveyor belts/chains, worn out batteries, unusable tyres and worn out conveyor/roller shafts.

Reason: To protect the amenities of the area.

14. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall relate to the greenfield area of the site which has not to date been excavated and shall be paid prior to re-commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with

the Development Contribution Scheme made under section 48 of the Act be applied to the permission to further develop the quarry.

15. Prior to re-commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to the Board for determination.

Reason: To ensure the satisfactory restoration of the site in the interest of visual amenity

Pauline Fitzpatrick
Senior Planning Inspector

November, 2016