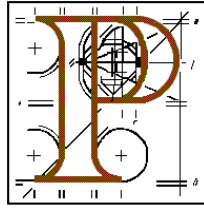


An Bord Pleanála



Inspector's Report

Development: Quarry, Toonagh Quarry, Ennis, Co. Clare.

Application for Substitute Consent under Section 177E

Planning Authority:	Clare County Council
Applicant:	Ryan Bros. (Ennis) Ltd.
Submissions / Observations:	An Taisce Health Service Executive Geological Survey of Ireland Department of Arts, Heritage and the Gaeltacht

Date of site inspection: 10th February 2014 and 8th April 2015

Inspector: Sarah Moran

1.0 SITE LOCATION AND DESCRIPTION OF EXISTING OPERATIONS

- 1.1 The substitute consent site is part of a limestone quarry located near the settlement of Toonagh, circa 7 km northwest of Ennis in Co. Clare. The topography of this part of Co. Clare has been classified as a 'lake and drumlin' landscape with many turloughs and limestone outcrops. It is generally lowlying and marshy with areas of bog, woodland and scrub. The lands immediately around the quarry are primarily agricultural with a scattering of individual houses along main roads.
- 1.2 The overall quarry site is bisected by the R476 Ennis to Corofin regional road and has a total area of 64 ha according to the documentation on file. The majority of the lands are on the southern side of the road, this complex comprises a large excavated area, processing areas (crushing, screening and washing), a lime kiln and associated structures, a concrete batching plant, a concrete block plant, a weighbridge and associated office and a staff canteen / facilities building. There is also a site office, display area and car park to the immediate west of the site entrance. The quarry has been excavated in benches cut into a hillside and is clearly visible from the public road. The lands to the north of the R476 contain settlement ponds, wooded areas and undeveloped wetlands.
- 1.3 The substitute consent application site has a stated total area of 20.56 ha and is located on the western side of the overall quarry site. The lands within the red line boundary have largely been excavated in benches to a depth of 22.5m a.O.D. (above Ordinance Datum). There are two surface water sumps within the excavated areas. Extraction is carried out by way of blasting. Extracted material is processed by a fixed plant, where it is crushed and screened. Primary stone products are stockpiled by the fixed plant, while secondary products are transported to the block plant and concrete batching plant. Surplus secondary stone products are also stockpiled. Most of the application site is situated to the south of the R476, however there is a small, triangular area on the northern side of the road, which has not been excavated and comprises grassland. The stated hours of operation of the quarry are 07.00 to 20.00 Monday to Friday and 07.00 to 16.00 on Saturdays. The quarry site was in operation on both occasions when the site was inspected.
- 1.4 The site notice was in place when the site was inspected on 10th February 2014.

2.0 SUBSTITUTE CONSENT APPLICATION

- 2.1 This is an application for Substitute Consent under Section 261A(3) of the

Planning and Development Act 2000. It is lodged on foot of a section 261A(2)(a)(i) and (ii) determination and section 261A(3)(a) decision by the planning authority. The consent application is accompanied by a remedial Environmental Impact Statement (rEIS) and a remedial Natural Impact Statement (rNIS). There is also a legal submission relating to development contributions. A proposed site restoration plan is submitted.

3.0 SITE HISTORY

- 3.1 In 1971, Clare County Council granted outline permission for the construction of a quarry including crushing, screening and washing plant, workshop, stores, offices, weighbridge and septic tank, ref. **8/4095**. The indicative site layout showed excavation and processing areas and a septic tank on the southern side of the R476 with water disposal to an area north of the R476. In 1972, approval was granted for “*construction of a quarry plant, workshop, offices, stores and weighbridge*”, ref. **8/4796**. The documentation on file 8/4796 states that the lands had already been used as a quarry for a considerable number of years.
- 3.2 Permission was granted in 1974 for a block making plant at the site, ref. **8/8552**, located south of the main vehicular entrance.
- 3.3 Permission was granted in 1979 to erect offices and a related septic tank at the site under **8/14552**, located south west of the site entrance.
- 3.4 Permission was granted to construct weigh office and new weighbridge under **91/591**, located to the immediate south of the site entrance.
- 3.5 Permission sought for an additional concrete batching plant at the site under **02/251**. The application was withdrawn. Permission was then granted for an additional concrete batching plant under **03/120**. This development was never carried out.
- 3.6 Permission was granted for a new canteen (with demolition of existing canteen) under **03/300**, to drain to the existing septic tank. This structure is located south east of the site entrance.
- 3.7 In 2003, the planning authority commenced an enforcement file on foot of a complaint about unauthorised quarrying at the site, ref. **UD03-305**, however it did not take any enforcement action due to the commencement of the section 261 process.
- 3.8 Under **04/615**, Clare County Council granted permission to Clogrennane Lime Ltd for a limekiln, fuel oil store and ancillary facilities on a 2.766 ha site at the southern end of the overall quarry site, to the immediate west of

the permitted concrete batching plant. The Board upheld this decision under **PL03.208121** and granted permission on 25th May 2005. The development was to be operated and managed in accordance with an Integrated Pollution Prevention and Control (IPPC) license, issued by the EPA. The facility is now operational and supplies lime to the ESB power station at Moneypoint.

- 3.9 In 2004 Ryan Bros. Ltd applied to the planning authority to register a 64.03 ha limestone quarry at this location, stating that the quarry had commenced operation before 1 October 1964, ref. **QY6**. The extracted area was stated as 38.544 ha. The planning authority registered the quarry subject to conditions. The applicant appealed the following conditions, ref. **03.QC.2001**:

- Condition no. 2 relating to maximum noise levels.
- Condition no. 4 relating to blasting impacts.
- Condition no. 23 relating to development contributions.

The Board decision issued on 7th June 2007 amended conditions nos. 2 and 4 and removed condition no. 23.

- 3.10 Clare County Council granted permission for a solid fuel storage and handling facility for the lime kiln at the site under **05/2074**.

- 3.11 Permission granted for a revised design of lime kiln and associated stack under **06/1789**.

- 3.12 Permission was granted for a concrete batching plant and associated settlement lagoons under **10/949**, all located on a 1.23 ha site at the southern end of the quarry. This development had already been granted under 03/1201 but had expired.

- 3.13 Permission was granted for an enclosed lime storage shed and associated works under **12/528**.

4.0 SECTION 261A PA REF. EUQY6

- 4.1 The planning authority section 261A process related to the following:

Quarry with 64 ha site, excavated area of 38.5 ha, with blasting, crushing, concrete batching plant, block making, stone washing. Extract volumes of 600,000 tonnes.

- 4.2 The planning authority received submissions from An Taisce and Peter Sweetman & Associates. The content of these submissions is noted.

- 4.3 Screening carried out by the planning authority concluded that Appropriate Assessment was required.
- 4.4 The planning assessment on file (based on a site assessment carried out on 25th April 2012) noted that extraction appears to have commenced at this site as early as the 1940s, with records of Clare County Council drawing material for road building from the site in the 1960s. In addition, outline permission had been granted under P8/4095 and approval under P8/4796. The total quarry area was estimated at 64 ha. The assessment concluded that approximately 35 ha of the site had been subject to extraction (including the processing area and lime plant). There was approximately 16 ha of undeveloped land remaining within the quarry. There were also approximately 10 ha of lands on the northern side of the R476, where the settlement lagoons were located, which formed an integral part of the overall quarry operation.
- 4.5 The planning authority determined on 1st July 2013 that section 261A(2)(a)(i) and (ii) applied to the subject site for the following reasons:
- *The physical expansion of the quarry into new lands after both the Environmental Impact Assessment Directive and the Habitats Directive came into effect.*
 - *Failure to assess the potential cumulative impacts of this expansion with the other activities on the site in accordance with the requirements of the EIA Directive.*
 - *Failure to assess the potential cumulative impacts of post 1997 developments in the context of the Habitats Directive.*

The planning authority decided that section 261A(3)(a) applied for the following reasons:

- *The operations on site commenced prior to 1st October 1964*
- *The grant of permission under Part IV of the Local Government (Planning and Development) Act 1963 (as amended) – Ref. P8/4095 and P8/4796*
- *The requirements in relation to section 261 of the Planning and Development Act 2000 (as amended) were fulfilled in relation to this quarry.*

The notice stated that the determination and decision did not apply to the developments permitted under applications P04/615, P05/2074 and P06/1789. The applicant was directed to apply to the Board for substitute consent under section 177E of the Act.

5.0 PLANNING POLICY CONTEXT

5.1 National Policy Guidance

- 5.1 The following national policy documents are considered relevant:
- *Quarries and Ancillary Activities Guidelines for Planning Authorities* DoECLG 2004.
 - *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* DoECLG 2013.
 - *Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities* DoEHLG 2009 and 2010
 - *Section 261A of the Planning and Development Act 2000 and Related Provisions Guidelines for Planning Authorities* DoECLG January 2012 and *Supplementary Guidelines* July 2012.

5.2 Clare County Development Plan 2011-2017

- 5.2.1 The following sections of the County Development Plan are considered particularly relevant to this case.
- Section 6.3.10 relating to natural resources and related objective 6.11.
 - Section 8.3.1 and related objectives 8.1, 8.2 and 8.3 relating to the protection of ground and surface waters. The County Clare groundwater protection scheme identifies that the majority of Clare's groundwaters are classified as 'extreme vulnerability'.
 - Development plan objectives 9.1, relating to the Water Framework Directive and 9.2, relating to the protection of water resources.
 - Development plan objectives 9.9 relating to noise pollution, 9.10 relating to air pollution and 9.11 relating to light pollution.
 - Section 13.3.11 relating to extractive industry and related objective 13.10.
 - Chapter 17 of the plan relating to natural heritage, in particular section 17.3.3 and objective 17.3 relating to Natura 2000 sites. Objective 17.4 sets out the requirement for AA under the Habitats Directive and section 17.3.5 relates to EIA.
- 5.2.2 Section 16.3 of the plan sets out the landscape character assessment (LCA) of the county. The site is located in an area defined as a "working landscape", in particular "The Western Corridor – Ennis to Limerick Working Landscape".

5.3 Ennis and Environs Development Plan 2008-2014 (as amended)

- 5.3.1 The site is within the boundary of this plan, but outside the settlement boundaries of Ennis and Toonagh, in an area zoned as 'open countryside'. The following policies are considered particularly relevant to this case:

- Settlement policy SS2 relating to development within the settlement boundary of Toonagh and SS3 relating to development in the open countryside.
- Policy AG5 relating to quarrying.
- Policy EN1 relating to proposed developments and protection of areas of nature conservation. Policy EN3 relating to the protection of river corridors. Section 9.3.2 relating to Natura sites and section 9.3.3 relating to priority natural habitats or species. Policy EN8 relating to landscape conservation.
- Policy W2 relating to the protection of water resources.
- Appendix 10 of the plan comprises the Landscape Characterisation Assessment (LCA).

5.3.2 It is noted that in September 2013, Ennis Town Council and Clare County Council decided pursuant to the provisions of Section 11.A(2) of the Act not to continue to review the Ennis and Environs Development Plan 2008 - 2014 and not to prepare a Draft Ennis and Environs Development Plan 2014 - 2020. The Electoral, Local Government and Planning and Development Act 2013 provides in this case that the existing Ennis and Environs Development Plan 2008 - 2014 (as varied) will continue to remain in force to the extent provided for by that plan.

6.0 PLANNING AUTHORITY ASSESSMENT

6.1 The planning authority has submitted an assessment of the application in accordance with section 177 of the Act. The following points are noted:

- The area of the quarry has physically expanded beyond the area which was granted permission under P8/4796. The development of the quarry into these new lands occurred after the EIA and Habitats Directives came into effect and under the Section 261A process were not deemed to be in compliance with same. The application for substitute consent therefore applies to approximately 20.56 ha of the total site area.
- There are also further significant reserves of rock available within the extracted area.
- There are several European sites close to the quarry. It is not considered that the quarry activity has had or will give rise to a significant effect on these sites.
- There are no sites of archaeological interest within the footprint of the application area. However, there are several recorded monuments in close proximity, ref. CL024-119, CL025-121 and CL025-124. It is considered that the quarry site has not had any significant effect on any of these sites.
- Toonagh quarry is identified as a County Geological Site for Co. Clare in *The Geological Heritage of Clare – An Audit of County Geological*

Sites in Clare. There are no conservation objectives attached to Toonagh Quarry, however the report states that the quarry is the best representative section in the county of the typical Clare Burren formation.

- The planning authority supports the conclusions of the rEIS with regard to groundwater and surface water impacts. It also supports the conclusions of the rNIS regarding groundwater and surface water impacts on designated sites.
- The noise survey results in the rEIS are in accordance with condition no. 2 of QY6 / 03.QC.2001.
- Traffic conditions at the site were assessed in the course of the application 10/949. It was deemed that the entrance was acceptable and that the generation of no more than 25 traffic movements per day would not impact significantly upon traffic volumes in the area.
- The planning authority considers that the rNIS is weak. There is a lack of information regarding who has prepared the report. There is no current survey of the Lesser Horseshoe Bat. The impacts of the development on the SAC site Toonagh House (site code 002247) have therefore not been adequately addressed. The rNIS does not assess impacts on the Peregrine Falcon, which is listed as an Annex I species of the Birds Directive and is an occupant of Toonagh Quarry. Photographs in the rNIS show that the Sand Marten is also a feature of the quarry but has not been mentioned in the rNIS. On this basis, the planning authority concludes that the rNIS has not adequately addressed the impacts arising from the quarry on the Natura 2000 sites.
- The planning authority would only recommend permission if the concerns raised in relation to the adequacy of the rNIS are addressed to the satisfaction of the Board.
- If these concerns are addressed, then permission is granted for the following reason:

This quarry provides a significant resource which provides a wide range of crushed and graded aggregates, hardcore and road making materials. It produces concrete blocks and a lime kiln was installed to produce a product which is required to address the emissions of the ESB coal burning power station at Moneypoint, Co. Clare in addition to other various industries. The quarry is a local enterprise employing locals and gives indirect employment to numerous others including hauliers at a local and regional level.

- The planning authority recommends conditions relating to noise limits and monitoring; vibration levels; dust levels and monitoring; groundwater monitoring; hours of operation; rehabilitation of plant and reinstatement bond.

7.0 PRESCRIBED BODIES AND OTHER SUBMISSIONS

- 7.1 The application was referred to the following prescribed bodies:
- Development Applications Unit (DAU), Department of Arts, Heritage and the Gaeltacht
 - The Heritage Council
 - An Taisce
 - An Chomhairle Ealaíon
 - Inland Fisheries Ireland, SRBD
 - The HSE
 - The Department of Communications, Energy and Natural Resources, Geological Survey of Ireland (GSI).
- Responses were received from An Taisce, the HSE, the GSI and the DAU. Each submission may be considered separately as follows.

7.2 An Taisce

- 7.2.1 The following points are noted:
- The European Court Judgement Case 215-06 provides that development coming under the EIA directive should only be permitted and subject to retrospective assessment in 'exceptional circumstances'. Current legislation fails to define where such circumstances should be deemed to apply.
 - The lodgement of an rEIS with the Board does not establish the legal basis of the quarry to which it relates or the entitlement of the quarry operator to obtain retrospective EIA consent.
 - No consideration should be given to any remedial EIA for a quarry which exceeds EIA thresholds and which does not have a valid planning basis and operating site boundary compliance under the following:
 1. Where the entire site area had a properly documented bona fide pre 1964 status.
 2. A grant of permission between 1964 and 1990 when the EIA Directive came into effect
 3. A grant of permission after 1990 when the directive came into effect.
 - Previous registration of a site under section 261 must be deemed to be irrelevant since this did not establish the legal basis of a site. This is confirmed by the November 2010 High Court judgement *An Taisce v An Bord Pleanála* by Mr Justice Charleton.

7.3 Development Applications Unit, DoAHG

- 7.3.1 The DAU makes the following recommendations with regard to nature conservation issues:

- Both the rEIS and the rNIS are based on ecological surveys undertaken on 15/02/13. This time of year is sub-optimal for botanical and vegetation surveys. It is also a significant constraint for bat, breeding bird and invertebrate surveys; survey results for these groups would be inconclusive for this time of year.
- The rEIS says little about the ecological effects the quarry has had over the relevant timeframe.
- The rNIS has overlooked Ballycullinan, Old Domestic Building cSAC in the screening exercise. This European site has been selected for the conservation of the Habitats Directive Annex II species, Lesser Horseshoe Bat, as has Toonagh Estate cSAC. The quarry is within the feeding and commuting range of Lesser Horseshoe Bats and the quarry site supports suitable habitat for bats and may have supported additional suitable habitat in the past.
- The omission of this site in the screening exercise and the rNIS, coupled with the lack of scientific and objective information about the qualifying interests of SACs that are identified as being at risk (i.e. Lesser Horseshoe Bats and surface water and ground water Annex I habitats and habitats of Annex II species) means that the rNIS is incomplete. While the ultimate conclusions may be correct, the necessary scientific evidence to draw such conclusions is not presented.
- There is no information on the bat surveys undertaken for the current assessment, if any. No available data or results of previous bat surveys are presented. The potential use of the site and surrounds by bats is not investigated and there is no consideration of whether blasting or other activities or emissions (e.g. dust) at the site may have affected bats and their habitats or feeding resources.
- The rNIS does not provide any details of water quality monitoring to determine what, if any affects the quarry has had on water quality over the relevant time frame of the assessment. Visual assessments of settlement ponds and information on the main plant species do not suffice in this regard.
- The rNIS does not include any consideration of other plans or projects in relation to potential 'in combination' effects with the substitute consent area. The overall quarry site and lime kiln are of relevance in this regard.
- The rEIS provides a general description of the quarry site as it is at present but does not address the likely or actual ecological effects of past quarrying in the registered areas specifically, or in the wider area. In this case, the general biodiversity and habitat diversity of the site may have increased over time as a result of quarrying.
- The restoration or reinstatement plan for the site should ensure that habitats and species of ecological value or potential in the quarry are conserved or allowed to develop on the site. The Notice Nature

publication on *Wildlife, Habitats and the Extractive Industry* will assist in this regard.

7.4 Health Service Executive

7.4.1 The following points are noted:

Noise Impacts

- Historic noise monitoring has been carried out at six no. noise sensitive locations for the period 2007 to 2013.
- Consideration should be given to a noise assessment that assesses the increase in noise above background levels (when the quarry is not operating) and the characteristic of the noise, including if there is any impulsive, tonal or low frequency noise.
- Notwithstanding the above, the monitoring results in paragraph 6 of section 10.2.1 against the absolute limits show an exceedence in November 2012, which was due to quarry operation. The rEIS states that this was resolved with mitigation. The original operation that caused the high noise level has not been identified in the rEIS, nor has the mitigation implemented been detailed. It would be beneficial, to prevent recurrence, if the original activity and the mitigation were identified in the rEIS.

Dust Impacts

- Dust monitoring results in the rEIS show a significant increase in dust levels from January 2013 to March 2013 with levels above the 350 mg/m²/day threshold at monitoring point D1.
- The rEIS does not show if peak daily levels were reported and, if so, what they were and what action was taken.
- The nature of dust deposition and its travel means that the distance to nearby dust sensitive receptors will not necessarily mitigate the high levels recorded at monitoring points D1 and D2.
- During a site visit on 12th July 2013 by an Environmental Health Officer dust deposits were clearly visible on the road to the front entrance of the quarry and surrounding vegetation. This visit was carried out during a period of exceptionally dry weather but there was no evidence of any watering down of the roads or the stockpiles or covering of the conveyors as per the mitigation identified in section 9.4 of the rEIS.
- The rEIS should clearly identify the conditions that will result in the dust minimisation mitigation measures being implemented and the mitigation proactively implemented.
- Consideration should be given to the extension of the dust monitoring to sensitive dwellings.

Impacts on Drinking Water

- The Environmental Health Service has reviewed water sampling carried out by the HSE for the Toonagh-Dysart Group Water Scheme that is now adopted by Clare County Council. This included results from sampling of any food businesses on the supply. The review did not identify any historic or current issues with the water supply that could be attributed to the operations of the quarry.

Quarry Operations and the Environmental Health Service

- The Environmental Health Service has no record of receiving public health nuisance complaints regarding the operation of the quarry and has no ongoing public health investigation related to the subject quarry.

7.5 Geological Survey of Ireland

7.5.1 The GSI has no additional comment to make.

8.0 APPLICANT RESPONSE TO SUBMISSIONS / OBSERVATIONS AND TO PLANNING AUTHORITY COMMENT

8.1 The applicant has submitted responses to the section 177 planning authority assessment and to the submissions by prescribed bodies. Each response may be considered separately as follows.

8.2 Applicant Response to Planning Authority Assessment

8.2.1 The applicant submits that the rNIS is adequate. The following points are made in relation to individual issues:

Groundwater and Surface Water Impacts

- The evidence to support the ecologist's statement that the existing settlement ponds are highly effective at removing excess silt and suspended solids is detailed in the rNIS.
- Visual assessment found a high clarity of water in the settlement ponds as a result of the diversion of runoff water to the ponds. The presence of abundant typical aquatic macrophytes (sensitive to low light associated with excessive suspended solids and increased nutrients) clearly indicates that the water clarity observed is an ongoing fact and that excessive discharge of suspended solids beyond the site boundary to surface / groundwater is not an issue.
- The submission highlights that the results of monitoring from the onsite pond / lagoon and the clean water lagoon between 2008 and 2012 are consistent with "natural uncontaminated surface water including very

low levels of suspended solids". Based on this, the quarry does not present a significant risk to designated sites beyond the local area, these can be screened out of AA subject to continuation of the existing EPA licensing requirements.

Lesser Horseshoe Bats

- It is submitted that an updated survey is not required and that the provided information is adequate.
- The nature, scale and footprint of the development has not changed since previous EIS surveys (in 2005 as part of planning application ref. 04/615).
- Potential impacts (disturbance / direct roost loss / loss of forage habitat / noise impacts / excessive light dispersal) from the development are insignificant.
- A site survey determined that no significant bat roost features exist at the site. Habitat forage features including settlement ponds, hazel scrub and other vegetated areas will be retained as part of the development.
- If changes have occurred to Lesser Horseshoe Bat populations at Toonagh House or other SAC sites detailed then it would be impossible to link this change with the quarry development as they are well removed from the quarry boundary.
- Any survey of Lesser Horseshoe Bat roosts would lead to a greater degree of disturbance risk than the development. In this case a license would be required from the NPWS for an accurate census of existing Lesser Horseshoe Bat populations.

Peregrine Falcon

- It is submitted that there is no requirement to assess Peregrine Falcon on the site in the rNIS. There is a requirement to consider relevant qualifying interests at Natura 2000 sites possibly linked to the effects of the quarry. While Peregrine Falcon are listed on Annex I of the Birds Directive there is no site in the vicinity of the quarry designated for protection of this species and hence no SPA exists where they can be considered a qualifying interest.
- Peregrine are considered in the rEIS and as the quarry is still a nest site it can be assumed that quarrying activity is not affecting them. The site operators are aware of the locations where the Peregrine Falcon nest and leave these areas undisturbed during the breeding season (as a minimum). In addition, the operator contacts the local NPWS ranger when a Peregrine Falcon is observed at this location.

Sand Marten

- Sand marten signs were not recorded at the site. In addition, they are not a qualifying species which is required to be considered in the rNIS. The photographs included in the rEIS and referenced by the planning authority include examples of successful quarry restoration works that have been carried out by Roadstone Wood Ltd. at other locations nationwide.

Ecologist Details

- The ecologist details and credentials are provided.

8.3 Applicant Response to Submission of HSE

8.3.1 The main points made may be summarised as follows:

Noise:

- The noise assessment was based on a 55 dB(A) day time and a 45 dB(A) night time limit. These limits are recommended in the EPA guidelines *Environmental Management in the Extractive Industry (Non-Scheduled Minerals)* and the Irish Concrete Federation (ICF) *Environmental Code*. In addition, these thresholds are included in the *Quarries and Ancillary Activities* guidelines for planning authorities.
- The November 2012 noise monitoring result for Location B. This isolated exceedance was attributed to quarry activity by the independent monitoring consultants at BHP Laboratories. The noise source was identified as the crushing and screening operations. The operator has carried out additional soundproofing works to the screen house and further soundproofing works, including the addition of extra cladding, are ongoing.

Dust:

- Dust monitoring is carried out on a monthly basis as per the EPA, ICF and local authority guidelines. These guidelines recommend the use of the German TA Luft Air Quality Standard, i.e. a total dust deposition limit of 350 mg/m²/day (averaged over a 30 day period) with measurements using the Bergerhoff Method. This method does not include measurement of individual peak daily levels and therefore it is not possible to produce them in response to the HSE query.
- The site operator is aware that the location of monitoring points D1 and D2 at a relatively long distance from sensitive receptors and within the quarry boundary increases the chance of dust monitoring results exceeding the threshold and may lead to the assumption of a higher dust level at the quarry boundary and beyond than is actually the case. The operator will seek to agree revised dust monitoring locations with

Clare County Council, to be near the quarry boundary and in the general vicinity of the nearest sensitive receptors.

8.4 Applicant Response to Submission of DAU

8.4.1 The submission responds to points raised by the DAU in relation to the rNIS and rEIS as follows:

Timing of Botanical and Vegetation Surveys:

- It is accepted that the timing of the survey was outside the main botanic growing season. It is submitted that an experienced ecologist can still identify habitats and areas where a potential for protected species may arise. The vast majority of the quarry is solid rock where extraction has occurred, with no vegetation or areas with a potential for vegetation to develop. It is therefore likely that the risk of significant findings at a more suitable time of the year is negligible.
- It is not possible to know definitively what habitats for flora and protected fauna existed over the relevant timeframe based on the information available. Any available information including previous EIS was reviewed to provide as accurate an assessment as possible.

Ballycullinan, Old Domestic Building cSAC and Lesser Horseshoe Bats:

- It is accepted that this cSAC was overlooked in the rNIS. A consideration of potential impacts on the cSAC is provided.

Water Quality:

- The rNIS provides evidence to support the ecologist's conclusion that the existing settlement ponds are effective (see details set out above).

Consideration of Other Plans and Projects:

- The rNIS takes into consideration the likely effects on European sites of a plan or projects either alone or in combination. This consideration included the wider quarry and lime kiln.
- Overall, the alone effects are considered negligible based on consideration of key qualifying interests and potential effects of the quarry. Hence no measurable risk will arise from the development for consideration with in combination effects. In this regard there is no requirement for detailed consideration of all specific plans/projects in the vicinity as no additional effects will arise.

Restoration Plan:

- A detailed restoration plan is submitted as part of the Landscape and Visual chapter of the rEIS. The plan includes the application areas and the entire landholding. It includes restoration of all noteworthy habitats described in the rEIS. It also includes substantial biodiversity focused

habitat creation including additional woodland and scrub planting and a large additional lake to develop naturally.

9.0 SECTION 132 REQUEST, APPLICANT'S RESPONSE AND FURTHER COMMENTS

9.1 Board Request for Additional Information

9.1.1 The Board requested the following items of additional information on 24th November 2014:

1)

Revised rEIS to address the following issues:

- Detailed study of potential impacts on the Peregrine Falcon, which is listed as an Annex I species under the Birds Directive and which is known to breed at the overall quarry site.

2)

Revised rNIS to address the following issues:

- Detailed assessment of potential impacts on all relevant Natura 2000 sites with specific consideration of their qualifying conservation objectives, i.e. Annex I habitats and Annex II species, and to the source / path / receptor assessment principle.
- Revised assessment of potential surface and ground water impacts on all relevant Natura 2000 sites with regard to their conservation objectives and to the source / path / receptor assessment principle, to include details of surface and ground water monitoring that has taken place at the overall quarry site.
- Consideration of potential 'in combination' effects of the substitute consent development on Natura 2000 sites along with other plans or projects, i.e. the adjacent quarry and industrial developments.
- The applicant should note with regard to the above that the subject quarry is within the feeding and commuting range of Lesser Horseshoe Bats and the site supports suitable habitat for bats and may have supported additional suitable habitat in the past. The revised remedial Natura Impact Assessment should give consider the potential use of the site and its surrounds by bats and whether blasting or other activities or emissions at the site may have affected bats and their habitats or feeding resources.

9.2 Response of Applicant to Section 132 Request

9.2.1 The applicant has submitted further particulars to supplement the existing rEIS and a revised rNIS.

9.3 Response of Planning Authority and Prescribed Bodies to Section 132 submission

9.3.1 Copies of the applicant's response were circulated to the prescribed bodies and to the planning authority. The Board received responses from the DAU at the Department of Arts, Heritage and the Gaeltacht and from Clare County Council. These responses may be summarised as follows.

9.3.2 DAU Comment on Applicant's Response to Section 132 Request

The following points are noted:

- The revised rNIS identifies a total of 6 no. European sites that are deemed to be at risk from the Toonagh Quarry site/activity. The potential for likely significant effects on the Annex II species and qualifying interest, Lesser Horseshoe Bat, is identified in the case of 5 no. SACs. Potential effects on 2 SACs with water dependent Annex I habitats and/or Annex II species are also identified. The focus of the rNIS should be on these sites and their relevant qualifying interests and conservation objectives. It is noted that the conservation objectives of the sites are not referenced. The relevant environmental baseline and trends should be taken into account, particularly in the case of this retrospective assessment.
- Some limited additional information is applied in relation to the Lesser Horseshoe bat, on foot of a bat survey that was undertaken. However, the details of the bat survey, including surveyor(s), the areas and structures surveyed, the weather conditions, the duration of surveys, and survey findings are either lacking or unclear. A map/drawing of the survey locations and of the quarry site itself, relative to the SACs selected for the conservation of Lesser Horseshoe Bat, is also lacking.
- In relation to the water dependent Annex I habitats that are qualifying interests of the 2 SACs, there is no information on the following: (1) whether the habitats are groundwater dependent and/or surface water dependent and (2) their degree of sensitivity to siltation, pollutants or nutrient enrichment potentially arising from quarrying.
- Some limited information is supplied to the Board in respect of the Birds Directive Annex I species, Peregrine Falcon, that is known to breed at the site. While mitigation to reduce potential adverse effects on breeding birds and nest locations is specified, the details of what must occur lack precision. The Board should ensure that commitments to carry out bird surveys will be met at the correct time of year, each year, and that the appropriate action and scheduling, rescheduling or relocation of works will be instigated so that loss or damage of nests, or significant disturbance, which would be in contravention of the Wildlife Acts, 1976-2000, does not occur.

9.3.3 Planning Authority Comment on Applicant's Response to Section 132 Request

The following points are noted:

- The Manager's Report submitted to the Board in June 2013 highlighted a number of issues that were not considered to be adequately addressed in the initial rNIS. The planning authority has reviewed the revised rNIS and notes that a detailed assessment of the subject quarry has been carried out.
- The planning authority would only recommend that substitute consent be granted should all relevant criteria be addressed to the satisfaction of the Board. If this is not the case, the planning authority considers that substitute consent permission should be granted for EUQY6.

10.0 PLANNING ASSESSMENT

10.1 I consider that this application for substitute consent may be assessed under the following headings:

- Scope of Substitute Consent Application
- Principle of Development
- Nature of Quarrying at the Site Post EIA Directive and Habitats Directive
- Ecological Impacts
- Surface and Ground Water Impacts
- Air Quality
- Noise and Vibration Impacts
- Visual Impacts
- Roads Impacts
- Development Contributions
- Conditions
- Planning Conclusion

10.2 Scope of Substitute Consent Application

10.2.1 The substitute consent process only relates to development that has occurred. It does not allow permission to be granted for any prospective development. Consent in this case would therefore result in the equivalent of permission for the subject quarry development and would not authorise any further excavation or works at any part of the overall quarry site that might happen in the future. On this basis, the following assessment (including the rEIA and rNIS) considers the development and impacts on a retrospective basis, while having regard to any ongoing impacts and necessary mitigations that are related to the development that has taken place.

10.2.2 The substitute consent application does not relate to the entire quarry area but to an area on the western side of the overall quarry site measuring 20.56 ha and straddling the R476. Quarrying operations carried out within the application area comprise the extraction of limestone using blasting techniques and processing (crushing and screening) of the fragmented rock to produce lime and aggregates. The issue arises as to whether the site operator can seek substitute consent for only a portion of the quarry and whether the rEIS and rNIS can effectively be confined to an examination of the substitute consent area. This application has come about on foot of a decision of the planning authority and the serving of a notice to apply for substitute consent for part of the site, i.e. lands outside the boundary of the original 1972 outline permission and 1974 approval, which took place after the EIA Directive and the Habitats Directive. In the course of the section 261A process, the planning authority produced a map, which superimposed the boundaries of the original permissions over an aerial photograph of the overall quarry site in 2010 (copy of same is on file). This clearly relates to the substitute consent application site, except for an area at the south eastern end of the site where a lime plant was permitted under P04/615 PL03.208121. I do not consider that there is any requirement or necessity for the Board to revisit the basis for the making of this application. The adequacy of both the rEIS and rNIS are considered in detail below.

10.3 Principle of Development

10.3.1 The DoECLG policy document *Quarries and Ancillary Activities Guidelines for Planning Authorities* (2004), emphasises the economic importance of quarries. These guidelines were written against the backdrop of a rapidly expanding construction sector. Given the prevailing economic climate in more recent times, there has been a fundamental decline in the construction industry and a significant reduction in the demand for aggregates. Operations and output in the extractive and construction industries are therefore subject to weighty review. Notwithstanding this a certain demand for aggregates will continue to arise and accordingly the necessity to ensure an adequate supply to facilitate future growth remains. The overall site has a well established use as a quarry.

10.3.2 The site is located within an area defined a 'working landscape' as per Map B of the *Clare County Development Plan 2011-2017*. These areas are described as follows:

Intensively settled and developed areas within Settled Landscapes or areas with a unique natural resource.

'Settled Landscapes' are described as the network of farmland, villages and towns where the majority of the population live and work. Uses envisaged within Settled Landscapes include agriculture, energy, forestry, extraction, transportation, industry and commerce, tourism, recreation and leisure, education, healthcare and social infrastructure, ref. section 16.4.3 of the plan. Objective 16.2 sets out criteria for permission in Settled Landscapes. The site is within the Western Corridor Working Landscape, i.e. Ennis to Limerick, all lands within 10 km on either side of the N18/M18. Objective 16.3 relating to the Western Corridor aims:

- a) *To permit development in these areas that will sustain economic activity, and 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 the consideration 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. Developments in these areas will be required to demonstrate:*
 - (i) That sites have been selected to avoid visually prominent locations.*
 - (ii) That site layouts avail of existing topography and vegetation to reduce visibility from scenic routes, walking trails, public amenities and roads.*
 - (iii) That design for buildings and structures reduce visual impact through careful choice of form, finishes and colours and that any site works seek to reduce visual impact of the development.*

10.3.3 The site is located in an area zoned as 'open countryside' within the plan boundary of the *Ennis and Environs Development Plan*. Outside the designated settlements, the plan gives high priority to the protection, conservation and enhancement of the character of the open countryside, ref. policy SS3. Development proposals will only be considered where it can be clearly demonstrated that such proposals will contribute to the sustainable growth of the local rural economy and the needs of the local population. Policy AG5 of the plan states that proposals for mineral extraction will only be considered where it can be clearly demonstrated that:

- a) *The development is phased and that each phase is restored to a viable use according to a programme of phasing agreed with the planning authority;*
- b) *Adverse impacts upon people, the landscape and the local environment are minimised;*
- c) *Monitoring procedures are put in place to measure environmental impacts;*

- d) *A comprehensive scheme of landscaping works is agreed with the planning authority and implemented before any development commences;*
- e) *A local consultative group is established by the operators of the development to include members and representatives of the local community and property owners to address operational issues impacting upon local amenity.*

10.3.4 It is considered that the subject quarry is generally in accordance with the above zoning objectives and criteria, subject to further assessment as set out below. It is also noted that the planning authority recommends a grant of substitute consent permission, subject to certain issues being addressed, due to its importance as a resource and as a local enterprise providing direct and indirect employment. The quarry is considered acceptable in principle at this location in the light of these matters.

10.4 Nature and Extent of Quarrying Carried Out at the Site Post EIA Directive and Habitats Directive

10.4.1 The original site layout of the quarry development approved in 1972 under 8/4796 included lands on both sides of the R476. The documentation on planning history file P91-591 gives an indication of the extent of quarry development at that time, post 1st February 1990 when the EIA Directive came into effect. The application form states a total quarry area of 10 acres (4.05ha) and the site layout, dated May 1991, indicates an area generally within the boundaries of the original 1972 approval. An aerial photograph dating to 1995 indicates extraction over a larger area, including works on both sides of the R476. Most of the works are within the original permission, except for some lands at the southern end of the site, which included an area of ponding. The overall extent of the quarry is not substantially greater in an aerial photograph dating to 2000, however, it is likely that the excavation area was deeper by that time as several benches are apparent.

10.4.2 The planning authority received a complaint relating to unauthorised quarrying at the site in 2003, ref. UD03-305. The complaint submitted that the site owner had purchased lands in 1973 but had purchased additional lands in 1985 (8.9ha) and in 1995 (1.8 ha). The planning authority did not pursue enforcement action as the site owner commenced the section 261 registration process in August 2004, ref. QY6. The site owner sought to register a total area of 64.03ha, within a site boundary that generally corresponds to the overall quarry boundary submitted with this application and which included the block plan permitted under P91-591. The planning report on file, dated 27th August 2004, noted that the quarry was operating on the southern side of the R476 only, however excavation had extended

to the site boundaries on the north western, western and south western sides. Further information submitted stated an extraction area of 38.544ha. The planning authority registered the quarry on 28th August 2006, subject to conditions including environmental monitoring. The conditions were appealed by the site owner. The Inspector's report on file, dated 2nd April 2007 (site inspection 7th March 2007), noted that the site has been excavated into three benches at various levels and states:

"... quite substantial improvements are about to be or in the course of being put in hand. These comprise the housing of the primary crushing station, the completely enclosing, including roofing of the primary screening station and the re-housing and enclosing of the secondary screening station."

The Board amended the conditions in accordance with the appeal submission but did not change the original decision of the planning authority, i.e. the total area of 64.03 ha was registered.

10.4.3 Permission was granted for a lime kiln at the site under 04/615. The permission was appealed, ref. PL03.208121. The permission and appeal ran concurrently with the section 261 registration process as the application was lodged in March 2004 and finally granted by the Board on 25th May 2005. The EIS was submitted on foot of a request by the Board. This stated that the lime kiln site was within an overall landholding of 109ha. Approximately 100 acres (circa 40 ha) was being used for quarrying, with another 50 acres for processing, stockpiling and storage.

10.4.4 Additional developments permitted at the site comprise:

- Permission for a solid fuel storage and handling facility for the lime kiln at the site under 05/2074;
- Permission for a revised lime kiln design and associated stack under 06/1789;
- Permission for a concrete batching plant and associated settlement lagoons under 10/949, all located on a 1.23 ha site at the southern end of the quarry. This development had already been granted under 03/1201 but had expired;
- Permission for an enclosed lime storage shed and associated works under 12/528.

10.5 Ecological Impacts

10.5.1 The matter of ecology is dealt with in this section but is also addressed in the remedial Appropriate Assessment undertaken in section 12 below and the remedial Environmental Impact Assessment set out in section 11

below. Therefore this section should be read in conjunction with those sections.

10.5.2 Lesser Horseshoe Bat roosts exist at a number of designated sites close to the quarry including:

- Toonagh Estate SAC. Site code 002247 < 1.1 km south of the quarry border;
- Old Farm Buildings Ballymacrogan SAC. Site code 002245, circa 4 km from the quarry site;
- Ballycullinan, Old Domestic Building SAC, 1.4 km from the site and
- East Burren Complex SAC. Site Code 001926, 3.13 km from the site.
- Dromore Woods and Loughs SAC. Site Code 000032, 3.5 km from the site.

This species is protected under the Habitats Directive. No suitable roost sites exist at the quarry. The rEIS comments that the continuous presence of large populations of the species near the site (potentially 7% of the County Clare population exist in close proximity) suggests that populations have not been impacted by quarrying activity in the area. I note that bat roosting habitat would be very limited at this location and that no habitats of high value for bats were recorded by the applicant. In addition, the EIS of 04/615 PL03.208121 included a detailed impact assessment on the Lesser Horseshoe Bat (dated February 2005), which considered potential impacts on bat maternity roosts within 2km of the site, comprising Ballycullinan Lake domestic building SAC (site code 002246) and Toonagh Estate SAC. This report identified that the existing quarry activities at the overall quarry site at that time were not impacting negatively on the maternity roosts. It concludes that the overall quarry site was of low significance for the Lesser Horseshoe Bat or other species of bats. It identifies that the probable feeding and transportation routes for the bats would be towards Ballygriffy Wood to the north east of the quarry and, therefore, development activity on the quarry site would not impact on this bat activity. The continued presence of a high number of bats at Toonagh Estate suggests that the population has not been affected by quarrying noise. The report recommends mitigation measures, which could be required by condition. On this basis and with regard to the findings of the rNIS as discussed further below, I am satisfied that significant bat impacts do not arise.

10.5.3 With reference to birds, the most notable feature is the presence of the Peregrine Falcon, an Annex I species under the EU Birds Directive and an amber listed species of moderate conservation concern. None were observed at the ecological site survey in February 2014, but a roosting adult was noted on the northwestern cliff of the main quarry pit in August 2014. I also note a report by the Heritage Officer of Clare County Council on the file QY6, dated 14th March 2005, which states that the Peregrine

Falcon had been using cliffs at the quarry as a breeding site for many years. According to the rEIS, the northwestern side of the site provides the most suitable nesting habitat. The nesting cliffs on this side of the quarry have been retained. As this area forms the perimeter of the site, it was undisturbed during the historic operation of the S261A quarried area. Peregrine typically nest in stone quarries (both active and inactive) and acclimatise to blasting and other disturbance including during the breeding season. The species seeks active quarries as the risk from other disturbances such as egg stealing and poisoning of adults is reduced at active sites. No known measurable impacts have arisen to Peregrine associated with past quarrying works at the site, it is submitted that the Peregrine occupying the site have obviously become accustomed to blasting. The birds are known by quarry site staff and are left to breed in an undisturbed state during quarry activities including blasting. However there is still a risk of disturbance to nest sites. The rEIS assesses the impact as “temporary significant impact locally”. Having regard to the limited information available, it seems unlikely that quarrying activity would not have had any impacts on this Annex I species with regard to the nature and proximity of works in the vicinity of the nest. However, it is accepted that the species remains present at the site. Potential impacts on European sites do not arise as the Peregrine is not a qualifying interest / conservation interest of any of the SPAs within 15km.

10.5.4 Overall, it can reasonably be concluded that the scale of quarrying in the context of the prevailing habitats in this location would not have resulted in significant habitat loss. Undoubtedly, displacement and disturbance of species has occurred for local mammals as wildlife corridors and foraging areas have been affected. However, the conservation status of such species, their common status and adaptability would suggest that impacts have not resulted in significant adverse ecological impacts at local level. I note with regard to the rNIS that no known habitats of special conservation value were affected by the development of the application site. In addition, the mitigation measures proposed to be employed include landscaping and remediation for the site. It is my submission that negative residual impact would be addressed by the site’s restoration following cessation of quarrying activities which would likely protect and improve on the ecological value of this site. Further details of restoration proposals could be required by condition

10.6 Surface and Ground Water Impacts

10.6.1 Surface Water Impacts

The quarry is located within the River Shannon Estuary North Catchment. The nearest surface water features to the site include:

- Ballycullinan Lough approximately 2 km north west of the site boundary. This is an SAC, site code 000016.
- Ballycullinan Stream approximately 1 km north of the site boundary
- Lough Reagh approximately 1.5 km north east of the site boundary
- Shallee River and Ballygriffy River approximately 1.5 km south of the site boundary, a tributary of the salmonid River Fergus located approximately 4 km from the site.

The rEIS outlines the water management system in place for the overall quarry site. Due to the lack of overburden, any rainfall on the quarry site either recharges to the bedrock aquifer or becomes surface water runoff, much of which collects in a sump at the bottom of the excavated area. Runoff from the quarry (including process water from washing of aggregate and runoff from hardstanding areas) is diverted via a pipe under the R476 to a settlement lagoon system on the northern side of the site. Following settlement, the water discharges to the ground under the conditions of water discharge license W.P. 156. There is also a 'clean water lagoon' in this part of the site, which supplies water to a holding tank in the processing area. This is generally consistent with information provided with the Section 261 registration QY6. Observations from site visits and a review of historical photographs indicate that the majority of the quarry floor has been dry to date with only small areas of water collecting at the topographical low to the west of the administration office and the sump at the centre of the excavated area. This sump is primarily composed of surface water run off with a possible minor infiltration of ground water seepage. Water from the sump is pumped to a holding tank near the process stated that water runoff from the quarry site was collected near the main offices. Foul water (domestic waste from the canteen and staff facilities) is discharged to 4 no. septic tanks within the site (3 in the front yard area and one behind the workshop). The rEIS does not provide details of the percolation areas for these septic tanks.

OPW flood records indicate one flood event at the quarry, which took place in December 1999 after a period of significant rainfall. The OPW flood report states that the flood was the result of increased groundwater levels after heavy rainfall and was not connected to any surface water features in the area.

According to EPA River Water Quality data, the quality of the surface water closest to the quarry is described as ranging from Good to Moderate, with the water quality a further distance away ranging from Moderate to Poor. The rEIS includes the results of surface water quality monitoring of the discharge point at the onsite pond/lagoon and the clean water lagoon is available for the period 2008 to 2012. The results appear to be consistent with natural uncontaminated surface waters including very

low levels of suspended solids. Elevated coliform levels are attributed to agricultural activity. There is no evidence of hydrocarbon contamination. In addition, surface water monitoring results for the period 1998 to 2004, as included in the EIS for 04/615 PL03.208121, all indicated that surface water quality in the area was high.

10.6.2 Groundwater Impacts

There are 8 no. wells within the overall quarry site, 5 north of the R476 and 3 south of the road. Interpretation of water levels within the quarry indicate that groundwater flows in a northwesterly direction above the R476, towards the clean water lagoon, the nearby fen and Ballycullinan Stream. Groundwater underlying the south eastern area of the quarry is likely to reflect the topology and flow south east towards the Shallee River and tributaries of the Ballygriffy River. Ballycullinan Lough is the source of water for the Toonagh-Dysert Group Water Scheme and there is a number of private wells in the surrounding area. The aquifer underlying the site is classified as a Regionally Important Aquifer Karstified (conduit). Groundwater recharge to underlying aquifers is diffuse (rainfall) through the limited overlying Quaternary deposits or directly into the aquifers where bedrock is present, i.e. within the quarry. The rEIS states that although this is a karstic environment, there are no point sources such as swallow holes recorded within the landownership boundary. The GSI/EPA source protection map indicates that the quarry is located within the Inner Source Protection Zone of the Drumcliffe Spring catchment which supplies the public drinking water for Ennis.

The rEIS states that works may have taken place below the water table in some parts of the quarry. The groundwater levels have been recorded at between 23.19m a.O.D. and 27.13m a.O.D. and the lowest level in the application area is approximately 22.5m a.O.D. However, the majority of the quarry floor has been dry to date with only a small amount of groundwater ingress to the sump at the bottom of the quarry floor. There is little requirement for pumping of water from the quarry floor. This would also indicate that there has not been any interception of the main underlying water table or any major conduits.

The rEIS considers the results of groundwater quality monitoring at wells within the overall quarry site for 2001, 2004 and 2013. The 2001 and 2004 monitoring results are drawn from the EIS of 04/615 PL03.208121 and full details of the 2013 results are provided. The results appear to be consistent with natural uncontaminated groundwaters showing no signs of mineral or nutrient contamination with the exception of elevated total suspended solids (TSS). These are assumed to be related to borehole construction and sediment build up. Aside from the elevated TSS, all

results were below the EPA Drinking Water Guidelines Values. There is no known adverse effect on water levels in adjacent private wells. The groundwater status in this area is of a higher quality than the status of the overall region which is defined with ten Water Framework Directive classification as “poor”.

10.6.3 Water Impacts Conclusion

I note that the rEIS does not consider potential impacts related to existing septic tanks at the site, which serve the offices and staff facilities buildings. However, it appears that the quarrying activity at the application site would overall have resulted in acceptable surface water impacts with regard to the lack of discharge to any surface water features and to the surface water quality monitoring results provided. The surface water management system in place at the overall quarry site therefore appears to be operating satisfactorily. In addition, there does not appear to be any record of previous events arising from the overall quarry development that resulted in any significant adverse impact on water in the wider environment. The nature of the site does provide opportunities for groundwater contamination due to the likelihood of groundwater ingress at the bottom of the excavated area. However, the groundwater sampling results provided generally indicate acceptable water quality with regard to the Drinking Water Standards and the Groundwater Regulations. I note that the planning authority supports the conclusions of the rEIS with regard to groundwater and surface water impacts. In addition, the submission of the HSE states that the Environmental Health Service has reviewed water sampling carried out by the HSE for the Clare County Council Toonagh-Dysert Group Water Scheme. The review did not identify any current or historic issues with the water supply that could be attributed to the operations of the quarry.

The rNIS considers potential impacts on the qualifying interests, i.e. aquatic species, of the following designated sites that are/may be hydrologically linked to the quarry site:

- Ballycullinan Lake SAC, site code 000016, 1.4km from the quarry site
- East Burren Complex SAC, site code 001926, 3.13km from the quarry site;
- Dromore Woods and Loughs SAC, site code 000032, 3.5km from the quarry site;
- Ballyaila Lake SAC, site code 004041, 3.6km from the quarry site.

The rNIS concludes that the quarry discharge is not affecting local aquatic ecology receptors, see the Appropriate Assessment below.

Based upon this, subject to the continuing implementation of the outlined mitigation measures, it is reasonable to conclude that there does not

appear to have been any significant adverse impacts on water from the development the subject of this substitute consent application and that the mitigation measures applied appear to have been successful. It is also considered that the proposed restoration programme is not likely to have any residual effects on the ground and surface water environment subject to its careful implementation. The rEIS water assessment is generally considered to be acceptable on this basis.

10.7 Air Quality

10.7.1 The rEIS notes available dust monitoring results from the years 2008 to 2013, as measured using the Bergerhoff Method. Monitoring was carried out at 5 locations around the perimeter of the overall quarry site south of the R476. The dust monitoring results are predominantly below the TA Luft dust deposition limit of 350 mg/m²/day. There is a cluster of exceedences at several locations during the period February to April 2008 (measures between 366.1 and 430 mg/m²/day). No explanation is provided for this. There are four other occasional exceedences at various locations in the range of 404.4 to 462 mg/m²/day. The rEIS notes that there has only ever been one complaint relating to dust from the quarry, this was during the section 261 process. Mitigation measures in place to minimise dust emissions are outlined, including use of a mobile water bowser system.

10.7.2 The rEIS is considered deficient in that it does not provide any explanation for the recorded exceedences of the 350 mg/m²/day compliance threshold limit. The HSE submission on file also comments that the rEIS does not provide details of daily peak levels, however this is not possible using the generally accepted Bergerhoff method of dust emission monitoring, as the collector receptacle is exposed for an extended period at the monitoring site. More seriously, the HSE submission states that dust deposits were clearly visible on the road to the front entrance of the quarry and surrounding vegetation during a site visit by an Environmental Health Officer on 12th July 2013. This visit was carried out during a period of exceptionally dry weather but there was no evidence of any watering down of the roads or the stockpiles or covering of the conveyors as per the mitigation identified in the rEIS.

10.7.3 The EIS carried out for 04/615 PL03.208121 provides additional details of dust monitoring carried out at the site in the period 2001 to 2004. The results were generally below the 350 mg/m²/day compliance threshold limit except at 'location A', where results were in the range of 288 to 935 mg/m²/day. The EIS attributes this exceedence to the proximity of the monitoring location to the operation of the primary and secondary crushers as well as significant stockpiles of stone including a large stockpile of sand. It is submitted that dust deposition levels would be much lower at the

nearest dust sensitive receptor, 260 m to the east. This point is accepted. In addition, the section 261 file QY6 / Q2001 provides dust monitoring results for July to December 2005. The results are generally below the 350 mg/m²/day compliance threshold limit except at 'location A', which had results between 404 and 826 mg/m²/day. These levels are also attributed to the proximity of the monitoring location to processing works.

10.7.4 While the above points are noted, the nature of the remedial EIS process involves making the best possible assessment based on the information now available. It is impossible at this stage to revisit historic incidences of excessive dust deposition. The available monitoring results indicate that dust deposition was generally within the accepted parameter. No known event since 1990 has resulted in any significant environmental impact arising from air quality impacts on residents from the quarry operations. I note also that the HSE has acknowledged that no complaints were received in relation to the past or present operation of the quarry. The dust minimisation measures in place therefore appear to have been reasonably successful. It is considered that, on balance, the subject quarry activity is acceptable subject to the satisfactory implementation of the mitigation measures outlined in the rEIS and to ongoing dust monitoring.

10.8 Noise and Vibration Impacts

10.8.1 The rEIS considers possible historic noise impacts based on noise monitoring carried out at 6 no locations around the quarry on a biannual basis with results available for the period 2007 to 2013. The results are mainly within the 55 dB(A) daytime and 45 dB(A) night time limits, however there are individual exceedences at all locations. In particular, there is a series of exceedences at locations 'A' and 'B' to the east of the site on the opposite side of the R476. The rEIS attributes these exceedences to traffic noise. It notes that night time exceedences took place at a time when there was no quarry activity. Noise mitigation measures are outlined including screening bunds and management of plant, vehicles and machinery. Blasting at the site is strictly controlled and monitored. Local residents are given notice of blasts and blast monitoring records for the period January 2006 to April 2013 are reviewed in the rEIS, all were within accepted parameters. The rEIS concludes that existing noise and blasting mitigation measures have been successful.

10.8.2 There are additional noise and blast monitoring results on the section 261 file QY6 QC2001. The noise results for 2004 and 2005 indicate one exceedence of the 55 dB(A) daytime noise limit during 2004, a level of 57.1 at location 'A' beside the site entrance. In 2005, there were two exceedences at location 'B' at the southern end of the site, attributed to rockbreaking, and location 'E', beside the R476, attributed to traffic noise.

The blast monitoring for 2004 indicates one incidence when the Air Over Pressure limit of 125 dB(L) was exceeded, i.e. a figure of 132.0 on 16th December 2004. Thus there has been some exceedence of the recommended day and night time noise limits. The HSE submission comments that no explanation has been provided for these exceedences, particularly an exceedence in November 2012. The applicant's response to the HSE submission clarifies that the noise source was crushing and screening operations. The operator has carried out additional soundproofing works to the screen house and further soundproofing works, including the addition of extra cladding, are ongoing. This response is considered acceptable. The HSE also submits that consideration should be given to a noise assessment that assesses the increase in noise above background levels (when the quarry is not operating) and the characteristic of the noise, including if there is any impulsive, tonal or low frequency noises. However, as noted by the planning authority, the rEIS noise survey results are in accordance with condition no. 2 of QY6 QC.2001. In that case, the Board imposed a standard noise condition requiring compliance with the standards of 55 dB(A) (60 minutes Laeq) at weekdays and Saturdays and 45 dB(A) (15 minute (Laeq) at any other time. Therefore, it is considered that the submitted noise monitoring results are sufficient.

10.8.3 I also note that the site does not have any history of noise related complaints. Having regard to the historic noise monitoring provided in the rEIS, it is considered that the subject operation did not result in excessive noise impacts overall and that noise impacts from the substitute consent site are acceptable subject to the implementation of noise mitigation measures outlined in the rEIS. As noted, all blasting activity at the site was monitored and recorded and were within DoEHLG and EPA recommended threshold limit values for groundborne vibration and air overpressure. This is acceptable.

10.9 Visual Impacts

10.9.1 The site is not located in a sensitive area where any specific landscape designations apply. Views of the application site are generally restricted to close and medium distance views from areas within 2.5 km located to the east, north and south of the site, due to the undulating nature of the local topography, i.e. intervening drumlins, which closes off extensive views. The greatest visual impact is on the adjacent stretch of the R476. The rEIS concludes that impacts on landscape character are moderate to significant but quite localised. The proposals and timescale for the restoration of the quarry will ameliorate this impact in the long term. At present, the site is insufficiently screened at its most vulnerable boundary (road frontage), resulting in high landscape and significant visual effects. The restoration plan includes proposals to minimise this negative impact. It is submitted

that the applicant has carried out successful quarry restorations in the past, examples are provided. Having inspected the site and viewed the quarry from various vantage points in the vicinity, I accept the conclusions of the rEIS. In addition, the substitute consent site does not significantly add to the visual impact of the adjacent quarry. The visual impacts are therefore acceptable.

10.10 Roads and Traffic Impacts

10.10.1 The site is accessed via the R476, where an 80 kph speed limit applies. The site has a large, recessed access with visibility in excess of the recommended 160m visibility from a set back of 3m set out in the NRA DMRB for roads within an 80 kph speed zone. Warning signage is present and maintained on the R476. The rEIS estimates volumes of HGV traffic generated by the quarry using records of volumes of materials leaving the site, which have been maintained for the previous 7 years (i.e. raw materials, concrete, blocks, ready mix and concrete). Traffic associated with the lime production facility is not included. The rEIS estimates a total number of 11.2 hourly HGV movements and 16 daily light vehicle movements. The R476 would have been the main route for quarry traffic to the N85 at Ennis, approximately 75% of quarry traffic. The rEIS estimates that 25% of quarry traffic would have travelled west, primarily using regional roads. It estimates that the quarry was using approximately 7% of the capacity of the R476 during the average year. The rEIS accepts that there has been a slight adverse impact on the pavements on the surrounding road network, particularly the R476. Permission for the concrete batching plant included a contribution for roads, also the site operator has realigned and resurfaced sections of the R476 over the lifetime of the quarry, details of works to date are provided. The rEIS concludes that there has been a minor to negligible impact on traffic capacity on the surrounding road network.

10.10.2 The EIS of 04/615 PL03.208121 provides details of projected traffic volumes associated with the lime plant. That assessment included traffic counts of contemporary traffic volumes in the vicinity. The proposed plant would generate approximately 58 traffic movements per day, of which 28 would be HGV's. The EIS concluded that this additional traffic would have a negligible impact on local roads and junctions. Having regard to that assessment, it is considered that overall traffic impacts were acceptable. I am satisfied that no significant historic traffic impacts are identified with regard to the rEIS and to the figures provided in the EIS of 04/615 pl03.208121. Adverse impacts on the R476 have been balanced by other road works carried out by the applicant, i.e. realignment and resurfacing. I did not observe any significant adverse impacts on the road surface in the

vicinity of the site entrance at site inspection. The overall roads impacts are considered acceptable on this basis.

10.11 Development Contributions

10.11.1 The substitute consent application includes a legal submission relating to development contributions. It is submitted that the power of the Board under section 177K(3) to impose conditions requiring a financial contribution in accordance with section 48 or a supplementary contribution scheme under section 49 can only be exercised in respect of a development that has yet to be carried out. Accordingly, the imposition of any retrospective development charge would not be reasonable, would be *ultra vires* and the Board would be unlawful. The applicant also submits that the proposed landscaping works would use soils available within the substitute consent area and adjoining permitted area. It is therefore not envisaged that the remediation works would not have any significant impact on local road infrastructure. In addition, the applicant has already carried out the following local road works to the R476 at their own expense:

- Road planing and resurfacing in March 2012 from 10m inside the main entrance to road edge of the R476 for a distance of 40m.
- In 1998 the old road surface was removed and strengthened and a new road surface was laid to the carriageway and hard shoulder south east of the main entrance, total length 90m.
- In 1973 the R476 was widened and realigned for a distance of approximately 475m from Ballybrody Cross to the “back gate” of the site north west of the main entrance. Other works comprising construction of a grass margin and construction of stone walls.

The planning authority submissions on file do not make any new comment relating to development contributions and do not recommend any condition requiring same.

10.11.2 Notwithstanding the legal submission of the applicant, it is noted that section 177(3)(c) provides for the inclusion of a condition or conditions requiring a financial contribution in accordance with section 48, i.e. the relevant development contribution scheme. I would note that were the applicant to have got planning permission for the level of works which have taken place on site to date, they would have been liable for the same level of development contributions. While the above works are noted, they would have been necessary in any case to facilitate the already permitted developments at the overall quarry site. In this regard I consider that the application of such is reasonable.

10.12 Conditions

10.12.1 Section 177(K)(3) of the Planning and Development Act 2000 (as amended) states that a grant of substitute consent may include one or more than one condition referred to in section 34(4); a condition or conditions relating to remediation of all or part of the site on which the development the subject of the grant of substitute consent is situated; a condition or conditions requiring a financial contribution in accordance in accordance with section 48; or a condition or conditions requiring a financial contribution in accordance with a supplementary development contribution scheme under section 49.

10.12.2 The planning authority has suggested a number of conditions should the Board be minded to grant permission. However, it should be noted that this application does not authorise further extraction and therefore operational conditions cannot generally be deemed to be necessary, directly relevant or capable of enforcement. Therefore, not all of the conditions recommended by the planning authority are considered relevant. Conditions nos. 1 and 2 require a noise limit and monitoring to regulate activities at the site. This relates to future quarry activity; noise impacts from other ongoing activities at the site would be regulated by their individual permissions. Likewise conditions no. 3 relating to blasting, no. 6 relating to hours of operation and no. 7 relating to groundwater monitoring, i.e. these all relate to ongoing activity.

10.13 Planning Conclusion

10.13.1 Having regard to the nature and scale of the development, which comprises an extension to a permitted quarry, and to the environmental impacts which have occurred, it is considered that subject to compliance with the conditions set out below, the development which has been undertaken has not had and is not giving rise to an unacceptable level of environmental impact, and is, therefore, in accordance with the proper planning and sustainable development of the area.

11.0 REMEDIAL ENVIRONMENTAL IMPACT ASSESSMENT

11.1 The introductory chapters of the Remedial Environmental Impact Statement (rEIS) set out the scope of the document. It considers the environmental impact of the works to date at the substitute consent application site, i.e. not the total impacts of the overall quarry site. Chapter 3 sets out the planning history of the site and notes in particular that the operational lime plant at the site was subject to EIA as a 'stand alone development' under 04/615 PL03.208121, as per the Inspector's report of that case.

- 11.2 The rEIS assesses the historical effects of the quarry development on the environment in a grouped format and under the following headings: socio economic; ecology; soils and geology; water; climate; air quality (dust); noise and vibration; landscape and visual impact assessment; traffic and road assessment; cultural and archaeological heritage; interactions. In terms of each of the aforementioned impacts, the rEIS provides a description of the existing environment; significant impacts; proposed ongoing mitigation measures and residual impacts. There is an adequate summary of the document in non-technical language. It should be noted at the outset that there are limitations in the ability of an rEIS to reach reliable conclusions regarding historic environmental impacts due to the lack of historic information relating to various emissions from the site. There is no possibility of acquiring new historic information at this stage. The conclusions in each chapter may be considered separately as follows, in the order in which they appear in the rEIS: Any additional information submitted on foot of the section 132 request is noted in the relevant section.

11.3 Socio Economic

- 11.3.1 A survey carried out in January 2013 found approximately 80 dwellings within a 1 km radius of the quarry. The most prominent clusters occurred to the immediate northwest of the site entrance (linear development) and to the south at Toonagh (nucleated settlement). There is little or no commercial activity apart from a grocery shop at Toonagh and some large agricultural buildings. Other building uses include a national school (Toonagh), church (Dysart) and a small vacant trade premises currently for sale (Toonagh). The prevailing industry in the area appears to be small scale agricultural activity. The Mid-West Region has a higher unemployment rate than the state. Toonagh Quarry directly employs circa 20 people on an annual basis and generates indirect employment in the area. The *Ennis and Environs Development Plan 2008-2014* provides for an amenity walkway along the old West Clare railway, over 1 km to the east of Toonagh Quarry. The quarry would be visible from a small section of this walkway. There is no direct negative impact on any tourism or amenity site. The lack of residences in close proximity to the site is noted, along with the absence of third party objections to the substitute consent application. The conclusions of the rEIS regarding impacts on human beings are accepted.

11.4 Ecology

- 11.4.1 The assessment is based on an ecological survey of the site carried out by an experienced ecologist on 15th February 2013. The existing environment at the site is described. There are no Natura 2000 sites

(SACs, SPAs) or nationally designated sites (pNHAs, NHAs) within the footprint of the overall quarry site.

11.4.2 The only key ecological receptor within the application site is the Peregrine Falcon, which is listed as an Annex I species under the Birds Directive and is an amber listed species of moderate conservation concern. Toonagh Quarry is known to support the species. None were observed at the survey in February 2014. A roosting adult was noted on the northwestern cliff of the main quarry pit in August 2014. The northwestern side of the site provides the most suitable nesting habitat, this area has been retained. No known measurable impacts have arisen to Peregrine associated with past quarrying works at the site, it is submitted that the Peregrine occupying the site have obviously become accustomed to blasting. The rEIS assesses the impact as “temporary significant impact locally”. Proposed mitigation comprises ecological monitoring in March/April each year to confirm bird breeding status and nest locations, with the results taken into account in planning operational practices (including blasting) during the nesting season (March-July).

11.4.3 Lesser Horseshoe Bat roosts exist at a number of sites close to the quarry including at Toonagh Estate SAC (< 1.1 km south of the quarry border). This species is protected under the Habitats Directive. No suitable roost sites exist at the quarry. The rEIS comments that the continuous presence of large populations of the species near the site (potentially 7% of the County Clare population exist in close proximity) suggests that populations have not been impacted by quarrying activity in the area.

11.4.4 The other key ecological receptors noted within the overall quarry site but outside the application area are:

- Semi natural oak-ash-hazel woodland which would have been the typical climax vegetation at the site prior to quarrying activity. This habitat is valued as being of at least Local Importance (Higher Value) and it may potentially support pine marten and other species of conservation interest.
- Other artificial lakes and ponds
- Wet grassland in the area north of the R476

The only identifiable impact to these receptors is the loss of approximately 0.18 ha of oak-ash-hazel woodland in the application area. Some of this area has since re-vegetated. This is considered a permanent slight impact to a locally important (higher value) habitat. The extent of this loss extends to <1% of the larger area of contiguous hazel dominated semi-natural woodland (>50ha) which surrounds the western and eastern side of the landholding.

11.4.5 Mitigation measures comprise water quality management as outlined elsewhere. The rEIS submits that a 'suitable post operation plan' could potentially increase local biodiversity. It concludes that there have been no significant adverse ecological impacts from works to date within the application area. Although limited, this ecological assessment is considered acceptable.

11.5 Soils and Geology

11.5.1 The assessment of impacts on the geological environment (soils, subsoils and bedrock) considers the overall quarry site as a unit with references to the application site. The Geological Survey of Ireland (GSI) confirms that Toonagh Quarry has been classified as a County Geological Site and may be proposed for NHA designated under the IGH 8 Lower Carboniferous theme of the Irish Geological Heritage programme. The quarry is described as the best representative section in the county, other than karstic exposures in the Burren, for the typical Clare Burren Formation. The site is classified as 'made ground' as the GSI recognises that there is development at this location. The remainder of the quarry is described as an area with bedrock close to the surface. There is very little soil remaining within the application area. No karst features have been identified within the quarry. The bedrock aquifer underlying and surrounding the quarry is classified as a Regionally Important Aquifer karstified (conduit).

11.5.2 The rEIS identifies the following impacts as a result of quarrying works within the application site:

- Removal of overburden with increased risk of surface water runoff containing elevated suspended solids entering the local surface water network.
- Increased groundwater vulnerability beneath the site. Potential risk of groundwater contamination.
- Material being carried off the site by vehicles leaving the quarry.
- Contamination of the underlying aquifer due to fuel spills from plant and machinery.

11.5.3 The rEIS outlines mitigation measures that have been implemented at the quarry site including an Environmental Management System; safe fuel and chemical storage; Emergency Response Kit; surface water management and landscaping to mitigate visual impact. The rEIS concludes that there have been no significant alterations to the local and regional soils and geology environment as a result of works within the application area. The above impacts are noted and this aspect of the rEIS is considered adequate.

11.6 Surface and Ground Water

11.6.1 The rEIS assesses the impact of historic works within the application area on the surrounding water environment. The quarry site is assessed as a unit with reference to the substitute consent site.

11.6.2 Surface Water

The quarry is located within the River Shannon Estuary North Catchment. The nearest surface water features to the site include Ballycullinan Lough, Ballycullinan Stream, Lough Reagh, Shallee River and Ballygriffy River, a tributary of the salmonid River Fergus. Surface water features present at the site comprise settlement ponds and a clean water lagoon to the north of the R476, a surface water sump and small areas of water on the quarry floor on the southern side of the R476 and a drain near the lime kiln. The rEIS outlines the water management system in place for the overall quarry site. According to EPA River Water Quality data, the quality of the surface water closest to the quarry is described as ranging from Good to Moderate, with the water quality a further distance away ranging from Moderate to Poor. The rEIS includes the results of surface water quality monitoring of the discharge point at the onsite pond / lagoon and the clean water lagoon is available for the period 2008 to 2012. The results appear to be consistent with natural uncontaminated surface waters including very low levels of suspended solids. Elevated coliform levels are attributed to agricultural activity. There is no evidence of hydrocarbon contamination.

11.6.3 Groundwater

Analysis of water levels at wells within the overall quarry site indicates that groundwater flows in a northwesterly direction above the R476, towards the clean water lagoon, the nearby fen and Ballycullinan Stream. Groundwater underlying the south eastern area of the quarry is likely to reflect the topology and flow south east towards the Shallee River and tributaries of the Ballygriffy River. Ballycullinan Lough is the source of water for the Toonagh-Dysert Group Water Scheme and there is a number of private wells in the surrounding area. The aquifer underlying the site is classified as a Regionally Important Aquifer Karstified (conduit). Groundwater recharge to underlying aquifers is diffuse (rainfall) through the limited overlying Quaternary deposits or directly into the aquifers where bedrock is present, i.e. within the quarry. The rEIS states that although this is a karstic environment, there are no point sources such as swallow holes recorded within the landownership boundary. The GSI/EPA source protection map indicates that the quarry is located within the Inner Source Protection Zone of the Drumcliffe Spring catchment which supplies the public drinking water for Ennis.

Works may have taken place below the water table in some parts of the quarry. However, the majority of the quarry floor has been dry to date, which would also indicate that there has not been any interception of the main underlying water table or any major conduits. The rEIS considers results of groundwater quality monitoring at wells within the overall quarry site for 2001, 2004 and 2013, which appear to be consistent with natural uncontaminated groundwaters showing no signs of mineral or nutrient contamination with the exception of elevated total suspended solids (TSS). These are assumed to be related to borehole construction and sediment build up. There is no known adverse effect on water levels in adjacent private wells. The groundwater status in this area is of a higher quality than the status of the overall region which is defined within the Water Framework Directive classification as “poor”.

11.6.4 Impacts and Mitigation

The rEIS outlines mitigation measures as set out in the Ecology section, in addition to the surface water management measures in place at the site and the management of soil stored at the site. It concludes that any impact on the local and regional water environment has been negligible. It appears that the quarrying activity at the application site would overall have resulted in minimal surface water impacts with regard to the lack of discharge to any surface water features and to the surface water quality monitoring results provided. The groundwater sampling results provided generally indicate acceptable water quality with regard to the Drinking Water Standards and the Groundwater Regulations. The rEIS water assessment is generally considered to be acceptable on this basis. I note that additional water information is provided in the rNIS, this is assessed further below.

11.7 Climate

11.7.1 The rEIS states that the climate on a local, regional and global scale has not been altered by the quarry to date. This point is accepted.

11.8 Air Quality

11.8.1 This section of the rEIS is based on available dust monitoring results for the years 2008 to 2013, as measured using the Bergerhoff Method at 5 locations around the perimeter of the overall quarry site. The dust monitoring results are predominantly below the TA Luft dust deposition limit of 350 mg/m²/day. The rEIS notes that there has only ever been one complaint relating to dust from the quarry, this was during the section 261 process. Mitigation measures in place to minimise dust emissions are outlined, including use of a mobile water bowser system. The rEIS

concludes that any residual dust emissions would not have any perceptible environmental impact, subject to continued dust monitoring.

11.8.2 The rEIS is considered deficient in that it does not provide any explanation for the recorded exceedences of the 350 mg/m²/day compliance threshold limit. In addition, the findings submitted in the rEIS are challenged by the HSE submission on file. However, there is sufficient documentary information on historic air quality at the site to carry out a limited assessment of past air quality impacts, as discussed above. I am satisfied that the dust minimisation measures in place appear to have been reasonably successful.

11.9 Noise and Vibration

11.9.1 The rEIS considers results of noise monitoring, which was carried out at 6 no. locations around the quarry on a biannual basis with results available for the period 2007 to 2013. The results are mainly within the 55 dB(A) daytime and 45 dB(A) night time limits, however there are individual exceedences at all locations. Noise mitigation measures are outlined including screening bunds and management of plant, vehicles and machinery. Details of blasting carried out at the site are provided and blast monitoring records for the period January 2006 to April 2013 are reviewed. All Air Over Pressure results recorded at nearest sensitive receptors outside the land ownership boundary were below the limit of 125 dB(L) as defined in the EPA Guidance Note for Noise in respect of Scheduled Activities. All values for the three orthogonal planes (Transverse, Vertical and Longitudinal) were well below the limit of 12mm/second peak particle velocity as recommended in DoEHLG, EPA and ICF environmental guidelines. Blasting mitigation measures are outlined. Potential blasting impacts have also been reduced due to distances from nearest noise sensitive receptors; to the presence of screening bunds around the perimeter of the quarry and to the implementation of best blasting procedures.

11.9.2 The rEIS concludes that existing noise and blasting mitigation measures have been successful. I am satisfied based on the rEIS and on additional documentary information available on historic noise and blasting impacts that significant adverse impacts did not arise.

11.10 Landscape and Visual

11.10.1 The landscape and visual chapter of the rEIS is based on a site inspection carried out on 28th March 2013. The study area extends to a 5km radius around the application site.

11.10.2 According to the *County Clare Landscape Character Assessment 2003* (LCA), the site is located in the Ennis Drumlin Farmland landscape. It sits in an area of transitional woodland and is surrounded by grasslands with occasional coniferous plantations and transitional woodland. The application area spreads over the slopes of a drumlin. The surrounding landscape undulates gently with land elevations between 10m and 50m a.O.D. There are low drumlins in the south, east and north of the study area. Approximately 2.5 km west from the application site boundary, the hills reach up to 190m a.O.D. The site is located in an area categorized as “Working Landscape” in the County Development Plan, i.e. an area that contains a pocket of concentrated development or a unique natural resource. The landscape is considered to be of medium sensitivity due to its intensively settled character, along with the presence of the existing quarry and industrial activity.

11.10.3 The rEIS considers visual impacts on various areas in the vicinity and concludes that views of the subject quarry are generally restricted to close and medium distance views from areas within 2.5 km located to the east, north and south of the site, with the greatest visual impact on the adjacent stretch of the R476. There are some intermittent and open views from the Mid Clare Way, national waymarked trail around the centre of County Clare, approximately 2-3 km from the northern site boundary. The rEIS concludes that impacts on landscape character are moderate to significant but quite localised. Mitigation measures comprise the proposed restoration plan. It is considered that the visual and landscape impact analysis in the rEIS is deficient in that it does not include photographs in the assessment of impacts on views from various vantage points. However, having inspected the site and visited the vicinity, I am satisfied that visual impacts of the quarry are severe but limited in extent. Moreover, the additional visual impact of the substitute consent development is relatively minor in the context of a substantial pre-existing quarry.

11.12 Traffic and Road Assessment

11.12.1 The assessment considers traffic generated as a result of activities within the overall landholding and not just traffic associated with the application site. No recorded incidents have occurred at the site entrance. Volumes of HGV traffic generated by the quarry have been estimated using records of volumes of materials leaving the site, which have been maintained for the previous 7 years (i.e. raw materials, concrete, blocks, ready mix and concrete). Traffic associated with the lime production facility is not included. The rEIS concludes that, given the rural nature of the location and the low volumes of traffic generated, it is likely that the site was causing a minor to negligible on traffic flows on the R476. The rEIS accepts that there has been a slight adverse impact on the pavements on

the surrounding road network, particularly the R476. These findings are considered reasonable.

11.13 Cultural and Archaeological Impact

11.13.1 The cultural and archaeological assessment is based on a paper and fieldwork study carried out in January 2013. The rEIS presents a summary of the archaeological and historical development of the study area and the main types of sites and monuments that are known from the surrounding landscape. There is one Recorded Monument within 100m of the application site, ref. CL025-119 Ballybrody Ringfort. This is located approximately 100m west of the site but has not been impacted by the development. An additional undesignated monument, ref. CL025-247, located more than 300m south east of the application site, is not impacted by the development. The rEIS concludes that there are no known items of cultural heritage, archaeological sites or buildings of heritage interest within or in the vicinity of the application area and no direct or indirect impacts on any such item. It is noted that the DAU stated no objection to the development proposed under 04/615 PL03.208121 in a submission to Clare County Council dated 6th July 2004. The current planning authority comment also does not consider that there has been any impact on recorded monuments in the vicinity. It is considered that overall the quarrying activity in the substitute consent area has not had any adverse impact on recorded monuments or protected structures in the area. Therefore, there are no concerns regarding cultural heritage impacts.

11.14 Interactions

11.14.1 The interactions identified have all been considered in the individual chapters of the rEIS. The rEIS concludes that none of the cumulative impacts resulted in significant environmental degradation and no new impacts are identified.

11.15 rEIS Conclusion

11.15.1 In general it is considered that each of the factors has been discussed in various levels of detail in the different sections of the rEIS including regard to mitigation measures. Some coverage has been given to the interactions between the factors in the various sections and briefly in Chapter 14. As this is an application for substitute consent there has not been an investigation of alternatives. I conclude that while there was potential for interactions to result in a cumulative impact, it has been demonstrated within this rEIS that none of these cumulative impacts resulted in significant environmental degradation. I accept that the mitigation measures implemented at the subject quarry were designed to ameliorate

the impact of the works within the application area and the overall site on a wider environment.

11.15.2 In the context of the substitute consent application it is considered that the rEIS provides a reasonably comprehensive description of the development and analysis of the likely impacts on the environment, when considered in conjunction with the further information provided in response to the Section 132 request and to the additional documentary information available on file. The assessment of impacts is based on the information available and in some cases on recent surveys during ongoing extraction. I consider that, despite the limitations on the baseline data, particularly having regard to the lack of historical environmental data available, the assessment of the impacts and the mitigation measures are sufficient to enable the Board to make a determination on the application.

11.15.3 I have considered the impacts, which have taken place, are and have been amenable to mitigation. Residual impacts after mitigation will not be significant. Regard does need to be had to restoration and landscaping and it is noted that while there have been some landscaping works, little restoration has been carried out to date. I would recommend that if the Board decides to permit that it be conditioned that a detailed restoration plan be submitted.

11.15.4 To conclude, while there are shortcomings in the information provided in the rEIS, there is no evidence to the effect that the quarry operations to date have had significant effects on the environment. I am satisfied overall that the documentation submitted including the description of the development, the baseline information, and the impact assessment and mitigation measures are described in sufficient detail to enable the Board to make a decision in this case with regard to the substitute consent application. It is therefore considered that the scope of the remedial EIS is satisfactory and in accordance with section 177F of the Planning and development Act, 2000, as amended.

12.0 REMEDIAL NATURA IMPACT ASSESSMENT

12.1 Introduction and Description of Development

12.1.1 The planning authority carried out an AA screening for works at the site subsequent to the 26th February 1997, as part of the section 261A process. It determined with regard to the Habitats Directive that AA would have been required and that such an assessment was not carried out. The screening assessment on file states:

Taking account of potential impacts associated with vibration, noise and dust emissions from the site and the proximity of Toonagh House SAC and other designated Natura sites a full bat, avian, water quality survey of the area is required. Hydraulic links between the quarry site and SAC designated sites need to be investigated to assess the potential for interferences with key relationships that define the function of the sites (including water quality).

The application includes a remedial Natural Impact Statement (rNIS), which considers potential impacts which may have arisen from past and current quarrying activity at the application site. The report was prepared by an experienced ecologist.

12.1.2 The rNIS describes the existing quarry development at the site. The following points are noted in particular:

- The quarry is located in the townlands of Ballybrody, Toonagh Commons, Drummeer, Drummin and Toonagh, Ennis, Co. Clare.
- The primary operational area is located south of the R476 Ennis to Corrofin road and a smaller area, comprising settlement ponds for the quarry operations, is located south of the R476.
- This limestone quarry has an overall area of approximately 64ha. The operations on the southern side of the R476 include a permitted lime kiln operated by Cloghrennane Lime Ltd. There is also a concrete batching plant, concrete block manufacturing plant, administrations offices, canteen, toilets, solid fuel storage and handling facility, weighbridge and reception office.
- The quarry has been in operation since the late 1940s. Planning permission was granted in 1972 (Ref. no. 8/4796). There have been a number of planning permissions for ancillary activities and operations at this location since 1972, which are detailed in the rEIS. The quarry was registered under section 261 of the P & D Act 2000, ref. QY/6.

12.1.3 The rNIS highlights that it was conducted for past works within the existing quarry and not for any proposed new works outside the existing permitted 1972 boundary. The site consists of the Substitute Consent application area within the overall landholding.

12.2 Revised rNIS Submitted Under Section 132 of the Planning and Development Act 2000

12.2.1 The Board sought further information under S321, including a revised rNIS to address the following issues:

- Detailed assessment of potential impacts on all relevant Natura 2000 sites with specific consideration of their qualifying conservation

interests, i.e. Annex I habitats and Annex II species, and to the source/path/receptor assessment principle.

- Revised assessment of potential surface and ground water impacts on all relevant Natura 2000 sites, to include details of surface water monitoring that has taken place at the overall quarry site.
- Consideration of potential 'in combination' effects of the substitute consent development on Natura 2000 sites along with other plans or projects, i.e. the adjacent quarry and industrial developments.
- The applicant was advised to note that the subject quarry is within the feeding and commuting range of Lesser Horseshoe Bats and the site supports suitable habitat for bats and may have supported additional suitable habitats in the past. The revised rNIS should give consideration to the potential use of the site and its surrounds by bats and whether blasting or other activities or emissions at the site may have affected bats and their habitats or feeding resources.

12.2.2 The applicant submitted a revised rNIS in response to this request. The revised rNIS is based on field surveys conducted on the 15th February 2013 and the 28th August 2014 and a nocturnal bat activity survey carried out at the site on 28th August 2014 among other information. These findings have been incorporated into the following assessment.

12.3 The European Sites Likely to be Affected (Screening)

12.3.1 The application site is not located within or adjacent to a Natura site and no Annex I habitats occur at the site. The rNIS considers potential impacts on all Natura sites within 15km of the quarry with regard to the source-pathway-receptor model, where, in order for an indirect impact to be established all three elements of this mechanism must be in place:

Source:	Toonagh Quarry activities including collection, diversion and discharge of water run-off from the active area of the quarry to the south of the R746;
Pathway	Direct impact to habitat or species from works associated with the quarry will not arise. Downstream emissions from the quarry (water runoff) and other indirect impacts and;
Receptor	The site qualifying interests and the related conservation objectives.

The 15 km radius is acceptable with regard to the DoEHLG document *Appropriate Assessment of Plans and projects in Ireland Guidance for Planning Authorities* (2010). This recommends a distance of 15km, which is often used to identify European sites that could potentially be affected by a development.

12.3.2 Table 3.1 of the rNIS provides a list of Natura 2000 sites within 15km of the quarry, which may be considered with regard to their qualifying interests and conservation objectives as follows:

Name of Site Description	Site Code	Distance from Substitute Consent Site (km)	Conservation Objectives / Qualifying Interests
Toonagh Estate SAC Former estate with stables providing nursery roost for Lesser Horseshoe Bat.	002247	1.09 south	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Ballycullinan Old Domestic Building SAC Derelict dwelling and surrounding fields east of Ballycullinan Lough.	002246	1.4 northwest	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Ballycullinan Lake SAC Calcareous lake and associated wetlands with Cladium fens.	000016	1.85 northwest	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae*
East Burren Complex SAC Extensive site incorporating a wide range of terrestrial and wetland limestone habitats.	001926	3.13 north	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected. Habitats: 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 3180 Turloughs* 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation 4060 Alpine and Boreal heaths 5130 Juniperus communis

			<p>formations on heaths or calcareous grasslands</p> <p>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (* important orchid sites)*</p> <p>6510 Lowland hay meadows (<i>lopecurus pratensis</i>, <i>Sanguisorba officinalis</i>)</p> <p>7210 Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion <i>davallianae</i>*</p> <p>13/02/2015 Generic Conservation Objectives</p> <p>7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*</p> <p>7230 Alkaline fens</p> <p>8240 Limestone pavements*</p> <p>8310 Caves not open to the public</p> <p>91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)*</p> <p>Species:</p> <p>1065 Marsh Fritillary <i>Euphydryas aurinia</i></p> <p>1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i></p> <p>1355 Otter <i>Lutra lutra</i></p>
<p>Moyree River System SAC</p> <p>Sheltered river valley surrounded by limestone outcrops and Ash-Hazel woodland.</p>	000057	7.19 northeast	<p>To maintain or restore the favourable conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected.</p> <p>Habitats:</p> <p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</p> <p>7230 Alkaline fens</p> <p>8240 Limestone pavements*</p> <p>8310 Caves not open to the public</p> <p>Species:</p> <p>1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i></p>
Dromore Woods and	000032	3.5 northeast	To maintain or restore the favourable

Loughs SAC Diverse site with a mosaic of woodland, limestone pavement and wetland habitats. Several lakes within the site are linked by the River Fergus.			conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected: Habitats: 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 8240 Limestone pavements* Species: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i> 1355 Otter <i>Lutra lutra</i>
Ballyalia Lake SAC Small shallow naturally eutrophic lake on the River Fergus. The lake is base rich with clear water.	000014	3.6 southeast	To maintain or restore the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected: 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation
Ballyallia Lake SPA Small eutrophic lake supporting a good diversity of wintering waterfowl.	004041	3.6 southeast	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: A050 Wigeon <i>Anas penelope</i> A051 Gadwall <i>Anas strepera</i> A052 Teal <i>Anas crecca</i> A053 Mallard <i>Anas platyrhynchos</i> A056 Shoveler <i>Anas clypeata</i> A125 Coot <i>Fulica atra</i> A156 Black-tailed Godwit <i>Limosa limosa</i> To maintain or restore the favourable conservation condition of the wetland habitat at Ballyallia Lough SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.
Corofin Wetlands SPA Oligotrophic limestone	004220	3.79 north	To maintain or restore the favourable conservation condition of the bird species listed as Special

wetlands supporting nationally important numbers of whooper swan and black-tailed godwit.			<p>Conservation Interests for this SPA:</p> <p>A004 Little Grebe <i>Tachybaptus ruficollis</i> A038 Whooper Swan <i>Cygnus cygnus</i> A050 Wigeon <i>Anas penelope</i> A052 Teal <i>Anas crecca</i> A156 Black-tailed Godwit <i>Limosa limosa</i></p> <p>To maintain or restore the favourable conservation condition of the wetland habitat at Corofin Wetlands SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.</p>
<p>Lower River Shannon SAC</p> <p>Very large site comprising marine, estuarine and freshwater habitats.</p>	002165	5.03 southeast	<p>The conservation objectives for Lower River Shannon SAC relate to the maintenance of a favourable conservation condition of the following Annex I habitat and Annex II species. There are detailed targets for each habitat and species.</p> <p>1029 Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> 1095 Sea Lamprey <i>Petromyzon marinus</i> 1096 Brook Lamprey <i>Lampetra planeri</i> 1099 River Lamprey <i>Lampetra fluviatilis</i> 1106 Atlantic Salmon <i>Salmo salar</i> (only in fresh water) 1110 Sandbanks which are slightly covered by sea water all the time 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1150 *Coastal lagoons 1160 Large shallow inlets and bays 1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1310 Salicornia and other annuals colonizing mud and sand</p>

			<p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>1349 Bottlenose Dolphin <i>Tursiops truncatus</i></p> <p>1355 Otter <i>Lutra lutra</i></p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation</p> <p>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>91E0 *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p>
<p>River Shannon and River Fergus Estuaries SPA</p> <p>Large estuarine complex supporting internationally important populations of wintering birds including Dunlin, Black-tailed Godwit and Redshank.</p>	004077	10.4 southeast	<p>The conservation objectives for Lower River Shannon SPA relate to the maintenance of a favourable conservation condition of the following Annex I habitat and bird species. There are detailed targets for each habitat and species:</p> <p>Species:</p> <p>A017 Cormorant <i>Phalacrocorax carbo</i> breeding + wintering</p> <p>A038 Whooper Swan <i>Cygnus cygnus</i> wintering</p> <p>A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> wintering</p> <p>A048 Shelduck <i>Tadorna tadorna</i> wintering</p> <p>A050 Wigeon <i>Anas penelope</i> wintering</p> <p>A052 Teal <i>Anas crecca</i> wintering</p> <p>A054 Pintail <i>Anas acuta</i> wintering</p> <p>A056 Shoveler <i>Anas clypeata</i> wintering</p> <p>A062 Scaup <i>Aythya marila</i> wintering</p> <p>A137 Ringed Plover <i>Charadrius hiaticula</i> wintering</p> <p>A140 Golden Plover <i>Pluvialis apricaria</i> wintering</p> <p>A141 Grey Plover <i>Pluvialis squatarola</i> wintering</p>

			A142 Lapwing <i>Vanellus vanellus</i> wintering A143 Knot <i>Calidris canutus</i> wintering A149 Dunlin <i>Calidris alpina</i> wintering A156 Black-tailed Godwit <i>Limosa limosa</i> wintering A157 Bar-tailed Godwit <i>Limosa lapponica</i> wintering A160 Curlew <i>Numenius arquata</i> wintering A162 Redshank <i>Tringa totanus</i> wintering A164 Greenshank <i>Tringa nebularia</i> wintering A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> wintering Habitat: A999 Wetlands
Pouldatig Cave SAC Natural limestone cave and hibernating site for Lesser Horseshoe Bat	000037	6.98 south	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and the Annex II species for which the SAC has been selected: Habitat: 8310 Caves not open to the public Species: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Ballyogan Lough SAC Lake complex with limestone pavement, scrub woodland, lake and caladium fen.	000019	7.93 northeast	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: 7210 Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> *
Newhall and Edenvale Complex SAC Natural fossil limestone caves supporting an important population of Lesser Horsehoe Bat.	002091	8.72 south	To maintain or restore the favourable conservation condition of the Annex I habitat and the Annex II species for which the SAC has been selected: Habitat: 8310 Caves not open to the public Species: 1303 Lesser Horseshoe Bat

			<i>Rhinolophus hipposideros</i>
Knockanira house SAC Two storey building with Lesser Horseshoe bat maternity roost.	002318	12 south	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Slieve Aughty Mountains SPA Large site of hills and lakes, much of which is afforested, supporting breeding hen harrier and merlin.	004168	10.22 east	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: A082 Hen Harrier <i>Circus cyaneus</i> A098 Merlin <i>Falco columbarius</i>
Old Domestic Buildings Rylane SAC Two domestic buildings, adjacent sheds and hedgerows supporting Lesser Horseshoe Bat roosts.	002314	12.8 east	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Moneen Mountain SAC Inland Burren habitats including limestone pavement and associated grasslands and heaths, hazel scrub and ash woodland.	000054	11.85 northwest	To maintain or restore the favourable conservation condition of the Annex I habitats and the Annex II species for which the SAC has been selected: Habitats: 3180 Turloughs* 4060 Alpine and Boreal heaths 5130 Juniperus communis formations on heaths or calcareous grasslands 6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i> 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (* important orchid sites)* 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 8240 Limestone pavements* Species: 1065 Marsh Fritillary <i>Euphydryas aurinia</i> 1303 Lesser Horseshoe Bat

			<i>Rhinolophus hipposideros</i>
Newgrove Houe SAC Remains fo a former mansion used as a hibernating site by Lesser Horseshoe Bat	002157	14.34 east	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>

* Denotes a priority habitat

12.3.3 Having examined the 15km site radius, I note that the following additional designated sites not listed in the submitted rNIS are located within 15km of the quarry site. These sites were not included in the S261A process carried out by the planning authority; however they are included here for the sake of completeness:

Name of Site Description	Site Code	Distance from Substitute consent site (km)	Conservation Objectives / Qualifying Interests
Old Farm Buildings, Ballymacrogan SAC Farmyard containing a series of stone sheds. The Lesser Horseshoe Bat breeds in two of the buildings. First advertised as a cSAC in July 1999.	002245	3.97 northeast	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>
Old Domestic Building (Keevagh) SAC A derelict dwelling, which is a breeding site of the Lesser Horseshoe Bat. First advertised as a cSAC in July 1999.	002010	12.64 southeast	To maintain or restore the favourable conservation condition of the Annex II species for which the SAC has been selected: 1303 Lesser Horseshoe Bat <i>Rhinolophus hipposideros</i>

12.3.4 The rNIS includes the following screening assessment for each of the above sites:

Site Name and Code	Distance from Substitute	Screening Assessment
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	Consent Site (km)	
Toonagh Estate SAC 002247	1.09 south	Yes Lesser Horseshoe Bat roost site in close proximity.
Ballycullinan Old Domestic Building SAC 002246	1.4 northwest	Yes Lesser Horseshoe Bat roost site in close proximity.
Ballycullinan Lake SAC 000016	1.85 northwest	Yes Potential hydrological linkages from groundwater flow in a north westerly direction.
East Burren Complex SAC 001926	3.13 north	Yes Lesser Horseshoe Bat roosts potentially within 6km of quarry development. Potential hydrological linkages from groundwater flow in a north westerly direction.
Moyree River System SAC 000057	7.19 northeast	No It is considered highly unlikely that given the distance involved any pollutants held in groundwater would have the potential to significantly impact qualifying interests. Roost sites within the SAC >6km from quarry development.
Dromore Woods and Loughs SAC 000032	3.5 northeast	Yes Lesser Horseshoe Bat roosts potentially within 6km of quarry development. Potential hydrological linkages from groundwater flow in a north westerly direction.
Ballyalia Lake SAC 000014	3.6 southeast	Yes This site may be hydrologically linked to the quarry from groundwater flow from the southern section of the quarry which is in a south easterly direction.
Ballyallia Lake SPA 004041	3.6 southeast	No Given the distance disturbance impacts to these species are not likely to arise.
Corofin Wetlands SPA 004220	3.79 north	No Given the distance disturbance impacts to these species are not likely to arise.
Lower River Shannon SAC 002165	5.03 southeast	No While the quarry is within the River Fergus catchment, there are no discharges to surface waters. It is considered highly unlikely that given the distance involved any pollutants held in groundwater would have the potential to significantly impact qualifying interests.

River Shannon and River Fergus Estuaries SPA 004077	10.4 southeast	No While the site is within the River Fergus catchment significant effects to these qualifying interests are not considered likely given the distance involved.
Pouldatig Cave SAC 000037	6.98 south	No Roost sites within the SAC >6k from quarry development.
Ballyogan Lough SAC 000019	7.93 northeast	No It is considered highly unlikely that given the distance involved any pollutants held in groundwater would have the potential to significantly impact qualifying interests.
Newhall and Edenvale Complex SAC 002091	8.72 south	No Roost sites within the SAC >6k from quarry development.
Knockanira House SAC 002318	12 south	No Roost sites within the SAC >6k from quarry development.
Slieve Aughty Mountains SPA 004168	10.22 east	No SNH (2013) indicates that the foraging distance of hen harrier in the breeding season does not exceed 10km, and that of merlin is within 5km.
Old Domestic Buildings Rylane SAC 002314.	12.8 east	No Roost sites within the SAC >6k from quarry development.
Moneen Mountain SAC 000054	11.85 northwest	No Significant effects to qualifying interests unlikely due to the distance of the site from the quarry. Lesser Horseshoe Bat roost sites >6km from the quarry. Terrestrial habitats have no potential to be impacted. It is considered highly unlikely that given the distance involved any pollutants held in groundwater would have the potential to significantly impact qualifying interests.
Newgrove House SAC 002157	14.34 east	No Roost sites within the SAC >6k from quarry development.

12.3.3 I note that the above assessment does not include the following European sites, which are also located within 15 km of the substitute consent site. The following screening assessment may be made, using the same rationale as provided in the rNIS:

Site Name and Code	Distance from Substitute Consent Site (km)	Screening Assessment
Old Farm Buildings, Ballymacrogan SAC 002245	3.97km northeast	Yes Lesser Horseshoe Bat roost site in close proximity.
Old Domestic Building (Keevagh) SAC 002010	12.64km southeast	No Roost sites within the SAC >6km from quarry development.

12.4 Likely Significant Impacts to Designated Sites

12.4.1 The rNIS then identifies the following key potential effects on the Natura sites, based on a review of their qualifying interests and sensitivities:

- Loss of Lesser Horseshoe Bat Habitat
- Pollution of Surface and Ground Waters

Each impact may be considered separately as follows.

12.4.2 Loss of Lesser Horseshoe Bat Habitat

No Lesser Horseshoe Bat roost exists within the quarry site. Loss of hazel scrub habitat due to land clearance for rock extraction may have resulted in a decrease in foraging habitat for Lesser Horseshoe Bat populations in the area. Noise, vibration and air quality (dust) impacts have the potential to cause disturbance. There may have been potential loss of foraging/commuting habitat to Lesser Horseshoe Bat populations associated with the following SACs:

- Toonagh Estate SAC (1.09km south of the substitute consent site)
- Ballycullinan old Domestic Building SAC (1.4km north west)
- East Burren Complex SAC (3.13km north)
- Dromore Loughs and Woods SAC (3.5km north east)
- Old Farm Buildings, Ballymacrogan SAC (3.97km northeast)

In particular, Toonagh Estate and Ballycullinan buildings are significant maternity roosts that may account for 2% of the national population and 7% of the Clare population.

Note:

While the rNIS does not specifically assess potential impacts on the Lesser Horseshoe Bat roost site located within the Old Farm Buildings, Ballymacrogan SAC (3.97km northeast), it is considered that the following assessment of impacts on the relevant conservation interest generally applies.

The rNIS states that there have been no direct impacts on any part of the above listed SACs as a result of the subject development. There are no

suitable bat roosts within the substitute consent site and no bat activity was recorded during site surveys. The rNIS concludes that bats, including Lesser Horseshoe Bats are not actively foraging on the site and no commuting routes are identified. This is consistent with the nature of the main site area as an active quarry with very little natural vegetation. No bats were recorded foraging in areas of semi-natural vegetation and wetlands at the north eastern section of the quarry (non active area including settlement ponds). Bat activity was very low in roads surrounding the quarry. Low numbers of Pipistrelle species were recorded and no Lesser Horseshoe Bats were detected at any location. As the quarry does not contain caves, it is not likely to support any areas suitable for winter hibernation. Quarry activities are carried out during the day and there is no potential for noise disturbance to foraging and commuting bats which emerge after dusk. Vibration monitoring undertaken at the quarry site indicates results below recommended limit values. Given that the nearest roost sites are >1km away and that population growth of roosting Lesser Horseshoe Bat has been observed in nearby Natura sites Toonagh Estate SAC and Ballycullinan Old Domestic Buildings SAC during the lifetime of the quarry, the rNIS concludes that roosts are unlikely to have been impacted by past blasting events.

Potential indirect impacts relate to habitat loss, which may have interfered with key relationships that define the structure of the designated sites due to the loss of key foraging areas or fragmentation of key commuting areas. Hazel/scrub habitat that was present at the site may have been used for foraging. Based on a review of aerial imagery back to 1995 there has been no significant change in woodland vegetation extent (potential forage habitat) except a very small fragmented area (<0.2ha). Historic 6 inch maps indicate that prior to any extraction in the area a small area of mixed woodland occurred in the south of the quarry site (where an isolated remnant remains in the south of the substitute consent area) and that lands within and around the quarry were predominantly rough pasture. The rNIS notes that extensive well grown hazel woodland now surrounds much of the western and southern boundaries, although mostly outside of the substitute consent area. Therefore, in the context of the quarry site and immediate local area over the long term there does not appear to have been a net loss of potential foraging bat habitat.

The rNIS notes that Lesser Horseshoe Bat were surveyed as part of the Cloghrennane Lime Kiln EIS in 2005. It was identified that the probable feeding and commuting routes for the bats would be toward Ballygriffy Wood, further to the north east of the quarry, therefore the quarry development would not impact on bat activity. It was also noted that the types of habitat present at the site were not the preferred habitat type for

the Lesser horseshoe Bat, which prefers tracts of mature broadleaf woodland such as those found at Ballygriffy Wood.

The rNIS notes that potential dust impacts on vegetation can damage food plants with consequent impacts on habitats. Dust result levels recorded at the Toonagh Quarry site over the past 6 years were predominantly below the compliance threshold limit of 350mg/m²/day. It is therefore considered unlikely that dust would have had a significant impact on Lesser Horseshoe Bats potentially foraging at the substitute consent site.

The rNIS concludes that, as the extent of foraging habitat within the quarry and its environs has not significantly changed over time, that more preferable foraging habitat exists outside of the quarry and that the nearest roost sites have seen a growth in abundance during the lifetime of the quarry, no significant impacts have arisen to SAC Lesser Horseshoe Bat roosts in the vicinity of the development. This conclusion is considered reasonable in the light of the above assessment and I am satisfied that significant adverse impacts on Lesser Horseshoe Bats did not arise.

12.4.3 Pollution of Surface and Ground Water

Pollution of surface and ground waters from suspended solids or uncontained pollutants has the potential to negatively affect sensitive aquatic habitats and species downstream of the quarry. This could impact on the following sites:

- Ballyalia lake SAC (3.6 km south east)
- East Burren Complex SAC (3.13km north)
- Dromore Loughs and Woods SAC (3.5km north east)
- Ballycullinan Lake SAC (1.85km north west)

Likely impacts relating to potential water quality changes may have interfered with the key relationships that define the function of these sites (maintenance of trophic conditions of lakes, nutrient availability to plants which are negative indicator species). Potential decline in water quality in the final settlement lagoon and in surrounding surface and ground waters.

The rNIS describes the surface and ground water features at the site and in the vicinity and the existing surface water management regime at the site as in the rEIS. The following information is provided on water quality:

- According to the EPA River Water Quality data, the quality of surface water closest to Toonagh Quarry is described as ranging from Good to Moderate, with the water quality a further distance away ranging from Moderate to Poor.
- According to the EPA WFD data the surface water in the area around Toonagh Quarry has an overall risk rating of 1b – probably at risk of

not achieving good status by 2015. This data source also describes the overall catchment water quality as poor.

- Surface water runoff is managed at the site and discharged to ground via settlement ponds on-site, reducing the potential for runoff with elevated suspended solids entering local surface water channels.
- Surface water quality monitoring results from analysis of samples from the discharge point at the onsite pond/lagoon and the clean water lagoon are available for the years 2008-2012. The results of the sample analysis appear to be consistent with natural uncontaminated surface waters including very low levels of suspended solids. It is noted that the coliform levels are elevated in some samples, this is attributed to agricultural activity.
- The rNIS notes that surface water monitoring results from 1998 to 2004 included in the Cloghrennane Lime Kiln EIS (2005), all results indicated that surface water quality in this area was good.
- Groundwater quality monitoring results are available for samples taken from wells at the site in 2001, 2004 and 2013. Apart from Total Suspended Solids, all results were below EPA Drinking Water Guidelines Values. Groundwater results were also analysed in the Cloghrennane Lime Kiln EIS (2001 and 2004). Results were below the EPA Drinking Water Guideline values, except for Selenium, associated with the environment of weathered rocks and soils. It is noted that the groundwater status in the area is of a higher quality than the groundwater status of the overall region, which is defined within the Water Framework Directive classification as “Poor”.

The quarry site consists of Karst limestone bedrock with no significant surface water features. Karst bedrock has high rates of transmissivity of groundwater. There is a high potential of contaminants being transferred from the site to surrounding Natura wetlands via groundwater if improperly managed. It is also noted that the current groundwater status in the regional area surrounding the site is ‘poor’ which is associated with the area being classified as a karstic environment. The settlement ponds in the area to the north of the R476 were checked during a site assessment on 15th February 2013. The study determined that the existing settlement ponds and associated reed beds are highly effective at removing excess silt and suspended solids. The rNIS concludes that the quarry discharge is not affecting local aquatic ecology receptors and that hence more distant Natura 2000 sites are not affected as the quarry is not a significant additive source of pollutants. This conclusion is considered reasonable with regard to the above analysis.

12.4.4 rNIS Conclusions

The rNIS concludes that it is considered certain that no adverse alone effects or in combination effects have arisen or are arising to relevant Natura 2000 sites as a result of works to date and ongoing works at the site. No adverse effects have occurred with regard to key qualifying interests and objectives. The precautionary principle has been implemented for all works on site to date. Current management procedures, groundwater protection measures and environmental monitoring for licensing, are adequate for protection of Natura sites. Current mitigation measures are adequate, no further mitigation is proposed or required. A post quarrying landscape plan should seek to recognise surrounding ecological habitats as appropriate planting, etc. could benefit the Lesser Horseshoe Bat in particular.

12.5 Potential In-Combination Effects

12.5.1 The rNIS considers potential in-combination effects from the following plans and projects:

- Ennis and Environs Development Plan 2008-2014, including relevant policies on quarrying and biodiversity.
- Pressures on the River Fergus Water Management Unit, i.e. diffuse pollution from agriculture and one off houses. A total of 10 wastewater treatment plants are identified as being at risk. Also 17 no. registered quarries in the catchment. Of these, 2 no. are located within 5km of Toonagh, i.e. Ennis Quarries Ltd at Ruan (3.5km to the north east) and Whelans limestone quarries at Fountain Cross (3.3km to the south). The rNIS concludes with regard to monitoring information that discharges from the subject quarry have not contributed to cumulative adverse effects on the River Fergus catchment and water-dependent qualifying interests of relevant European sites.

12.5.2 These conclusions are accepted with regard to the above analysis.

12.6 Mitigation Measures

12.6.1 It is submitted that current mitigation measures have been effective in reducing potential impacts of silt-laden run-off and dust impacts. An outline of the current measures is submitted, along with an overview of the proposed restoration plan.

12.7 Adequacy of rNIS

12.7.1 Section 177G of the Act sets out the criteria for an rNIS, which shall contain the following:

(a) a statement of the significant effects, if any, on the relevant European site which have occurred or which are occurring or which can reasonably be expected to occur because the development the subject of the application for substitute consent was carried out;

(b) details of –

(i) any appropriate remedial or mitigation measures undertaken or proposed to be undertaken by the applicant for substitute consent to remedy or mitigate any significant effects on the environment or on the European site;

(ii) the period of time within which any such proposed remedial or mitigation measures shall be carried out by or on behalf of the applicant.

(c) such information as may be prescribed under section 177N;

(d) and may have appended to it, where relevant, and where the applicant may wish to rely upon same:

(i) a statement of imperative reasons of overriding public interest

(ii) any compensatory measures being proposed by the applicant.

12.7.2 It is considered that the submitted rNIS (including the revised rNIS) complies with these requirements except for the omission of 2 no designated sites within 15km as set out above, i.e.:

- Old Domestic Building (Keelvagh) SAC site code 002010
- Old Farm Buildings, Ballymacrogan SAC, site code 002245

These sites were not included in the S261A screening analysis carried out by the planning authority. They have been included in the above assessment for the sake of completeness. It is considered that there is sufficient information available in the submitted rNIS, the rEIS, the further information response and the available historic documentation to carry out an assessment of potential historic impacts on the relevant conservation interests, i.e. the Lesser Horseshoe Bat.

12.7.3 While the initial rNIS submitted with the substitute consent application was inadequate with regards to surface water and Lesser Horseshoe Bat impacts, these issues have generally been addressed in the revised submission, which includes additional bat survey data and further consideration of surface water impacts. The rNIS does not address impacts on Peregrine Falcon, an Annex I species under the Birds Directive, however this is not listed as a qualifying interest of any of the SPAs within 15km. The DAU considers that the rNIS was carried out at a time of year that is sub-optimal for botanical and vegetation surveys and that there are insufficient details of the additional bat survey. While it is accepted that the survey data is limited, this is an inherent difficulty with the rNIS process. The assessment of impacts which has taken place is

based on best available information. In this case, the combined data available from the rNIS, the rEIS and the historic documentation on file is considered adequate to enable the Board to carry out an AA.

12.8 rNIS Conclusion

12.8.1 To conclude, while there are shortcomings in the information provided in the rNIS, I am satisfied overall that no significant likely impacts have been identified to have arisen for the identified European sites within 15km, with regard to the sites' conservation objectives. I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate to carry out a Stage 2 Appropriate Assessment, that the development for which substitute consent is sought, individually or in combination with other plans or projects did not adversely affect the integrity of the following European sites, in view of their Conservation Objectives:

- Toonagh Estate SAC (site code 002247)
- Ballycullinan Old Domestic Building SAC (site code 002246)
- Ballycullinan Lake SAC (site code 000016)
- East Burren Complex SAC (site code 001926)
- Dromore Woods and Loughs SAC (site code 000032)
- Ballyalia Lake SAC (site code 000014)
- Old Farm Buildings, Ballymacrogan SAC (site code 002245)

13.0 CONCLUSION

13.1 Having regard to the acceptability of the environmental impacts as set out above, it is considered that, subject to compliance with the conditions set out below, the subject development is not contrary to the proper planning and sustainable development of the area. This application is not concerned with any future quarrying and I would be satisfied that significant effects that have taken place to date can be remedied with appropriate conditions.

RECOMMENDATION

I have considered the contents of the application, the rEIS, the rNIS, the submissions on file, observations from the site visit and the provisions of the current Clare County Development Plan 2011-2017. I recommend that substitute consent be granted for the development based on the reasons and considerations hereunder and subject to the conditions set out below.

REASONS AND CONSIDERATIONS

The Board had regard, inter alia, to the following:

(a) the provisions of the Planning and Development Acts, 2000 to 2014, and in particular Part XA,

(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 remedial Environmental Impact Assessment submitted with the application for substitute consent and the additional information on environmental impacts submitted on 12th January 2015,

(e) the remedial Natura Impact Statement submitted with the application for substitute consent and the additional revised remedial Natura Impact Statement submitted on 12th January 2015,

(e) the submissions made in accordance with Regulations made under section 177N of the 2000 Act, as amended,

(f) the report of the Board's Inspector, including in relation to potential significant effects on the environment,

(g) the planning history of the site,

(h) the pattern of development in the area,

(i) the nature and scale of the development the subject of this application for substitute consent.

The Board considered that the Inspector's report was satisfactory in addressing the environmental effects of the development and also agreed with its conclusions in relation to the acceptability of mitigation measures proposed and residual effects.

CONDITIONS

1.

The grant of substitute consent shall be in accordance with the plans and particulars submitted with the application on the 6th June 2014 and the 12th January 2015 and relates only to works undertaken prior to the decision of Clare County Council to serve notice on 22nd August 2012 of the requirement to apply for substitute consent. It does not authorise any excavation which has taken place since that date and does not authorise any future excavation.

Reason: In the interest of clarity.

2.

A detailed restoration scheme for the site according to the broad principles indicated on drawing *Figure 11.4 Restoration Plan* shall be submitted to the planning authority for written agreement within three months of the date of this order. The following shall apply in relation to the design and timing of the restoration plan:

- (a) The site restoration shall provide for the immediate re-vegetation of the site where suitable and/or the provision of features to control sediments which could result in surface water pollution.
- (b) The capacity of any settlement ponds installed shall be demonstrated to be adequate to cater for extreme rainfall events. Management measures relating to release of stored water shall be described.
- (c) Prior to commencement of works, a further survey of the site by an ecologist shall take place to establish, in particular, the presence of badgers, nesting birds, bats, amphibians or other species of ecological value, including flora, which may recently have taken up occupancy on the site. The restoration plan shall have regard to the results of this survey.
- (d) Details of site safety measures shall be provided.
- (e) A timescale for implementation and proposals for an aftercare programme of five years shall be agreed with the planning authority.

Reason: In the interest of the visual amenities of the area, to ensure public safety and to ensure that the quarry restoration protects and enhances ecology.

3.

Within three months of the date of this order, 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. 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 the Board to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000 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.

4.

Within three months of the date of this order, 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.

Sarah Moran,
Senior Planning Inspector
18th June 2015