

An Bord Pleanála



Inspector's Report

SU03.SU0134

Development: Stone quarry at Derrynalecka, Kilmurry McMahon, County Clare.

Application for Substitute Consent under Section 177E

Planning Authority: Clare County Council

Applicant: Michael King

Submissions: Four

Observations: None

Date of site inspection:

Inspector: 7th December 2015
5th August 2016

1.0 SITE LOCATION AND EXISTING OPERATIONS

- 1.1 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) (ii) determination and section 261A (3) (a) decision by An Bord Pleanála and the application is accompanied by a remedial Natura Impact Statement (rNIS).
- 1.2 Substitute consent permission is being sought for a stone quarry. The quarry is located in the townland of Derrynalecka to the E of Kilrush and N of the Shannon Estuary in County Clare. The quarry occupies a rural area, the site boundaries are defined by hedges and fencing, and the lands slope down from N to S. There are several dwellings in the vicinity and vehicular access is via a local road off the R473 to the S at Kilmurry McMahan.
- 1.3 The overall landholding comprises two separate sites. These include the quarry site itself and agricultural fields to the W and N. The quarry has an elongated layout, roughly along an NE-SW axis. The boundaries are defined by steep embankments which adjoin farmland to the N. The most active area is located in the S section and here is a recently constructed entrance to the site off the local road to the NW.
- 1.4 There are ponds at various locations within the quarry including a large pond in the SW section. Run-off from the site discharges to a ditch along the S site boundary that flows W to a stream. This stream crosses the local road (through a pipe) to the W of the site where it joins another stream on the opposite side of that road (also piped beneath an adjacent entrance). The second stream discharges SW to the Crompaun River c.1.0km from the quarry site which in turn flows S before discharging to Kilmurry Creek at Clonderalaw Bay in the Shannon Estuary.

2.0 SUBSTITUTE CONSENT APPLICATION

2.1 The applicant is seeking substitute consent for an existing shale and sandstone quarry which comprises a c.2.6ha excavated area. The application was accompanied by a Remedial Natural Impact Statement.

2.2 Remedial Natural Impact Statement (rNIS)

2.2.1 The remedial Natural Impact Statement (rNIS) contains a description of the site, receiving environment and survey methodology; an analysis of the project and other plans and projects in the area; an assessment of impacts; and avoidance and mitigation measures. The rNIS states that the quarry is located c.1km from the Shannon Estuary SAC and SPA. It concludes that significant negative effects to the integrity of the SAC and SPA are unlikely to have occurred, to be occurring, arising from either the construction or operation phases.

3.0 SITE HISTORY

3.1 Pre 1964 and planning applications

The planning authority accepts that this quarry was in operation prior to 1964. There is no record of any valid planning applications or permissions for this quarry site.

3.2 Referrals

R11-12: relates to a site c.210m to the W of the subject site and within the same overall landholding and the question related to whether or not the reclamation of low-lying agricultural lands by importing waste soil and stone into the site is exempted development or not. It was decided that having regard to the provisions of Part 3, Class 11 of the Second Schedule of the 2001 Regulations that the development was exempted.

3.3 Enforcement

UD13-0022: relates to a Warning Letter issued to Michael King on 16/05/13 in relation to non-compliance with condition nos. 4 and 14 of QY19 with respect to the prohibition of blasting, crushing or screening on the site and the lodgement of a Bond.

A subsequent letter dated 01/10/13 confirmed that Mr King was currently in full compliance with the conditions attached to QY19.

Enforcement Notice was issued on 26/01/15 which required Mr King to cease all quarrying activities by 28/01/15 and to not commence any development of this land where no permission has been granted.

3.3 Section 261 Registration

3.3.1 This Substitute Consent application relates to a stone quarry that was registered by the County Council under Section 126 subject to 14 conditions.

- *Condition no. 3:* restricted the quantity of extracted material to 15,000 tonnes per year.
- *Condition no.4:* prohibited blasting, crushing or screening.
- Condition no.10: referred to surface/ground water monitoring.
- Condition no.13: prohibited excavation below the water table.

3.4 Section 261A Determination

3.4.1 The site comprises a stone quarry that was previously registered by the Council under the Section 261 process, the overall quarry site was in the region 7.8ha with an estimated operational area of 4ha and an extraction area of c.3.5ha.

- 3.4.2 The planning authority decided that section 261A 4(a) applied with regard to the planning history of the site which indicated that the quarry commenced operation on or after the 1st day of October 1964 and that no permission was granted in respect of the quarry under the Planning and Development Acts. The planning authority also decided that section 261A (2)(a)(i) in relation to EIA and section 261A(2)(a)(ii) in relation to AA applied and that an EIS and NIS was required.
- 3.4.3 Following a review under QV00297 the Board decided to confirm the determination of the planning authority on the basis of the information submitted which confirmed that quarrying activity has occurred on these lands before the by the 1st day of October 1964 and that the requirements in relation to registration under S.261 of the Planning and Development Act, 2000 as amended were fulfilled. The Board decided to set aside the determination of the planning authority under section 261A (2)(a)(i) in relation to EIA. The Board decided to confirm the determination planning authority under section 261A (2)(a)(ii) in relation to AA. The Board determined that development was carried out after the 1st day of March 1997 which would have required, having regard to the Habitats Directive an Appropriate Assessment but that such a determination was not carried out or made.

4.0 PLANNING POLICY CONTEXT

4.1 Quarries & Ancillary Activities Guidelines for Pas, 2004

This document provides guidance to planning authorities on determining applications for planning permission for quarrying and ancillary activities. It notes the economic importance of aggregates and that there will be a sustained level of demand in support of infrastructure provision. The document also provides advice in relation to environmental protection, visual impacts and residential amenity.

4.2 Clare County Development Plan 2011-2017 (as varied)

4.2.1 The following sections of the Plan are considered relevant to this case.

Section 13.10 Objective: Minerals, Mining and Quarrying

- (a) To promote the extraction of minerals and aggregates where such activities do not have a significant negative impact on the environment, landscape, or residential amenities of neighbouring settlements and where such operations are in compliance with all national regulations and guidelines applicable to quarrying and mining activities;
- (b) To map aggregate resources during the lifetime of the Plan in order to positively plan for the extractive industry at appropriate locations.

4.3 West Clare Local Area Plan 2012-2018

Policies and objectives: No relevant provisions.

Heritage: The Lower River Shannon SAC, Rivers Shannon & Fergus Estuaries SPA and Clonderlaw Bay pNHA are located c.1.5km to the S of the site and there is a Ring Fort RM located within c.250m of site.

5.0 SUBMISSIONS

5.1 The Planning Authority assessment

5.1.1 Context

- Site comprises an area of 2.596ha within a larger stone quarry.
- A tributary of the Crompaun River passes to the SW of the site.

- A surface water drain runs along the S boundary of the site connects to this tributary.
- The quarry is c.1.1km from the Lower River Shannon SAC, 1.5km from the River Shannon & River Fergus Estuaries SPA and 1.8km from the Clonderlaw Bay pNHA.

5.1.2 ***Anticipated significant impacts may include the following:***

Water quality:

- Run off of sediment laden waters to European sites via nearby streams and tributaries.
- A recent site visit indicated high levels of suspended solids in the western settlement pond.
- This discoloured water was discharging via a mechanical pump to the surface water drain along the S site boundary and the drain water continued to appear coloured c.500m from the site.
- A new roadway connects the W if the site to the public road, the road abuts a surface water drain along its length and most of the road is outside the area of this SC application, and these works may have taken place in 2012.
- The continued excavation of the active rock face will in time remove the existing access road from the N access point and the new road will become the main entrance.
- This road does not have planning permission and there is potential that during periods of wet weather that active erosion of the N bank of this land may occur.
- The rNIS refers to “implementing an appropriate solution to ensure sediment in the run-off remains on the site” which will comprise settlement ponds downstream of the site.

- The above issues should be fully and adequately addressed by the Board in order to ensure that there is an appropriate surface water management regime in place to serve the quarry.

Groundwater pollution:

- A recent site visit indicated that water was being pumped to an adjacent land drain, this does not appear to be the result of groundwater inundation as the pond is located higher than the quarry floor which was generally free from water.

5.1.3 Remedial measures recommended or undertaken

- Not aware of any remedial measures with regard to significant effects on the environment, European sites or the surrounding area.
- Remedial measures should take account of the continuation of the extraction activity and ancillary activities.

5.1.4 Recommendation and conditions

The application for substitute consent should be approved subject to a number of conditions related to:

- The site should be managed in accordance with a Drainage Management Plan to be agreed with the PA, the plan should incorporate a water quality monitoring programme.
- Apply a maximum limit on the annual volume of extracted material relative to the size of the settlement ponds and sediment traps.
- The watertable should not be breached.
- Measures to reduce environmental risks.
- Blasting is not permitted.
- Set a noise limit equivalent to Condition no.6 of QY19.

- Set dust levels and monitor.
- Haulage vehicles leaving the site should not exceed 10 tonnes.
- Install a wheel washing facility at the entrance.
- Prepare a rehabilitation plan.
- Operational hours.
- No quarrying outside the site boundary.
- No advertisements.

5.2 Prescribed bodies

5.2.1 The application was circulated for comments under the provisions of Section 131 of the Act. The following prescribed bodies were included:

- Department of Arts, Heritage and the Gaeltacht
- The Department of Communication, Energy and Natural Resources
- Health Services Executive
- The Heritage Council
- An Chomhairle Ealaíon
- Fáilte Ireland
- An Taisce

5.2.2 *Department of Arts, Heritage and the Gaeltacht (NPWS):*

- The quarry is located c.1km from the Lower River Shannon cSAC.
- Site has been selected for the conservation of the Annex 11 Freshwater pearl mussel in the Cloon River and the conservation objective seeks to restore the favourable conservation condition.
- The quarry drains towards this SAC via either the Cloon or Crompaun Rivers, the rNIS refers to the Crompaun River but only shows the Cloon River in Figure 1.

- There is insufficient information about the project in relation to site drainage and the hydrological setting in the rNIS and application to be clear about the direction drainage.
- Based on the information currently available it is not possible to exclude with confidence the potential for silts and other emissions from the quarry to reach a tributary of the Cloon River.
- The quarry is located 530m from the mapped boundary of the Cloon River “Margaritifera sensitive area” however the full extent of the surface water drainage catchment is not always exact at the margins, and an OS mapped watercourse extends outside the mapped area, closer to the quarry.
- There is insufficient information and details about site drainage and the hydrological setting of the quarry and about surface water management during its operation and at present, to establish the potential effects, if any, on the Cloon River.
- A hydrological assessment, or objective scientific information about the hydrology of the quarry and environs, is essential to exclude the potential for significant effects on the SAC, and to undertake an AA.
- Little consideration of the potential effects of the quarry on groundwater and a hydrogeological assessment or objective scientific information about hydrogeology is also essential to undertake the assessment and determine if there were/are any risks to the SAC during its operation and at present.
- Conservation objectives are alluded to in the rNIS but the site specific conservation objectives of the SAC, including the attributes, targets and notes they contain, are not utilised in the rNIS.

- Having regard to the above, and the limited information and analysis in the rNIS, the implications of the quarry for the conservation objectives of the SAC are not fully known.
- There are no restoration or re-instatement plans for the quarry.

5.2.3 ***The Health Services Executive:***

- The stone quarry was operational on 16th October 2015.
- The Lower River Shannon SAC and the River Shannon & River Fergus Estuaries SPA lie 1km to the S, there are several small water courses in the vicinity and the Lower Shannon and its immediate tributaries are subject to tidal influences.
- Quarry excavations are mainly below surrounding ground levels.
- *Wastewater treatment:* Sanitary facilities are not provided and drinking water supply and wastewater treatment should comply with EC and EP standards.
- *Noise and vibration:* It would appear that rock blasting takes place about once a year and this is significant and hasn't been referred to in the rNIS and mitigation measures should ensure that:
 - Blasting and the use of rock drill to be carried out only during the following hours: 09.00 to 16.30 hours Monday to Friday.
 - Peak particle velocity due to blasting measured at the nearest house shall not exceed 10mm per second.
 - The PA require that 95% of all overpressure levels measured at the nearest house conform max peak of 125dB(Lin) and do not exceed a peak particle velocity of 12mm/s, measured in any three mutually orthogonal directions at the receiving location, in line with the 2006 EPA guidelines.

- The applicant informs inhabitants of all houses within 1km of the quarry of his intention to carry out blasting operations 24 hours in advance.
- *Dust/air pollution:* There is no detailed dust management plan and vehicular movements especially at the entrance should be included in any such plan; dust deposition should not exceed the standard of 350mg/m²/d measured as an average over 30 days.
- *Settlement pond:* The installation of an appropriately sized settlement pond downstream of all activities should be completed in line with Section 6.0 of the rNIS “Avoidance and Mitigation”.

5.2.4 The Geological Survey of Ireland:

- The evaluation of the quarry operation’s possible effect on the environment and the proposed mitigation measures in the rNIS are considered satisfactory.

6.0 RESPONSE SUBMISSIONS

6.1 Applicant response to HSE

ML King Haulage submitted a response to the concerns raised by the HSE which are summarised below:

- *Wastewater treatment:* Sanitary facilities are provided for the one or two employees in a nearby building close to the applicant’s house and wastewater treatment is by means of the same septic tank.

- *Noise and vibration:* Occasional blasting has taken place over the years and the intensity and frequency of blast vibrations will be kept below the required standards.
- *Dust/air pollution:* Any monitoring programme should take account of small scale of the operation and the absence of nuisance dust.
- *Settling pond:* Water has traditionally passed through one settling pond to release to local watercourses which are devoid of sedimentation; there is a low instance of argillaceous or Brownian material and new measures to apply flocculants are not proposed.

6.2 Applicant response to Clare County Council

ML King Haulage submitted a response to the conditions proposed by the County Council which are summarised below:

- *Condition no. 2:* extraction volumes vary from year to year depending on demand in the W Clare area, this is the only stone quarry in the area and a restrictive condition should not be attached.
- *Condition no.5:* blasting is a necessary procedure in a stone quarry, this was confirmed by the Council in a letter dated 29th March 2007, it would be impractical to operate a stone quarry without blasting and this condition should not be attached.
- *Condition no.8:* it is necessary to allow for loads of up to 20 tonnes and most vehicles have this capacity, a financial contribution was previously made to the Council towards road maintenance, and agreeable to a 20 tones with restriction.

7.0 FURTHER INFORMATION

7.1 Further information request

The applicant was requested to submit the following FI:

- Revised drawings along with a revised rNIS which accurately describes the area of the quarry where development was carried out after the 1st March 1997 and the nature of the works undertaken after that date for which Substitute Consent is sought.
- Revised drawings which clearly show the relationship between the quarry site, the surrounding watercourses and their tributaries, and the Lower River Shannon SAC. The revised drawing should also indicate direction of drainage from the quarry to the watercourses.
- Revised drawings which clearly show the relationship between the quarry site, the surrounding watercourses and their tributaries, and the Cloon River Margaritifera sensitive area.
- Detailed hydrological and hydrogeological assessments of the area.
- A revised rNIS which identifies and assesses the impacts of quarry activities on the Qualifying Interests and Conservation objectives for the Lower River Shannon SAC, with respect to the relevant attributes, targets and notes for each habitat or species.

7.2 Further information response

The applicant submitted the following documents:

- Revised Quarry Plan
- Hydrology & Hydrogeology Report and Catchment Map
- Revised rNIS

7.2.1 Revised Quarry Plan

The revised quarry plan clearly indicates the extend of the overall quarry landholding and the specific area which is the subject of this substitute consent application.

7.2.2 Hydrology & Hydrogeology Report and Catchment Map

This report describes the site which is within the Derrynalecka sub-catchment area in relation to underlying bedrock geology, quaternary geology, topography and geomorphology. It identifies watercourses and catchment boundaries, and it analyses the rainfall regime and hydrology for the sub-catchment area. It states that it was not possible to provide a numerical analysis of surface and groundwater flows because of the in-homogeneous nature of the underlying geology. However, rainfall data and quarry dewatering records were used to estimate of seasonal variations in flow rates in the S branch the Derrynalecka river and the effect of human intervention (including the quarry) on local hydrology and hydrogeology was analysed. The report concluded that the completion of the improvement work to deepen the drain downstream of the quarry along with the installation of a settling pond would protect groundwater from pollution. It also noted that the stream bed downstream of the quarry shows little sign of silt deposition and there is little evidence of dust fall around the quarry boundaries.

The report also assessed the potential for impacts on watercourses in adjacent catchments including the Cloon River Margaritifera Sensitive Zone. It concluded that because there is a topographical divide between the quarry and the Cloon River catchment, it would be hydrologically impossible for quarry water to enter the Cloon River system and there is no evidence to suggest that the Derrynalecka stream is significantly higher than the bed of the Cloon River.

7.2.3 Revised rNIS

This document contains four new sections, over what was in the original rNIS, which seek to address the request for further information.

- Tables 2 on page 9 identifies the features of interest for the River Shannon and River Fergus SPA which is followed by a summary of the current status of each species of bird and a short commentary on the SPA Conservation Objectives.
- Table 3 on page 12 identifies the specific Conservation Objectives for the habitats and species in the Lower River Shannon SAC.
- Section 2.3 (Literature Review) has been expanded by the addition of 4 short paragraphs and 4 new figures which deal with water quality and Freshwater Pearl Mussel. The report states that the greatest threat to this species is poor water quality, however:
 - There are no recorded populations in the Crompaun River or its tributaries.
 - The quarry is not located within the catchment of any significant watercourse and smaller water courses drain the land directly to the Estuary.
 - The Cloon River is subject to a sub-basin management plan for the conservation of FWPM.
 - The quarry is not located within the catchment of the Cloon River and so can have no effect on populations of FWPM.
- Section 5.2 (Summary) has been expanded by the addition of one short paragraph which concludes that as the quarry is not located within the sensitive catchment of the Cloon River which holds a population of FWPM which is in turn a QI for the Lower River Shannon SAC, activities at the quarry can have no effect on the conservation objectives for this species.

- Section 6.0 (Avoidance and Mitigation) has been expanded by the addition of one short paragraph which concludes that no significant effects are likely to arise as a result of this project in light of the conservation objectives for the Lower River Shannon SAC or the Lower River Shannon and Fergus Estuaries SPA.
- Section 7.0 continues to conclude that this study has found that significant negative effects to the SAC and SPA are unlikely to have occurred, or be occurring, arising from either the construction or operation phases.

7.3 Response to further information

The applicant was also requested to organise revised public notices and the FI response was circulated to the planning authority and prescribed bodies. One response was received from the HSE who had no further comments.

8.0 ASSESSMENT

8.1 The main issues arising are set out below:

- Compliance with planning policy
- Remedial Appropriate Assessment
- Other issues
- Conditions

8.1 Compliance with planning policy

The site is located in an un-zoned rural area outside of any established settlement and the use of the lands for quarrying is compatible with national and local planning policy as set out in the 2004 Quarry Guidelines and the current County Clare Development Plan for the area, and in particular the policies and objectives which deal with the extractive industry.

8.2 Remedial Appropriate Assessment

8.2.1 The Remedial Natura Impact Statement

The remedial Natura Impact Statement (rNIS) (as amended by FI) describes the receiving environment and survey methodology. It analyses the project and other plans and projects in the area and assesses potential impacts, and it proposes mitigation measures. The rNIS and amended rNIS reports are summarized in sections 2.2 and 7.2.3 above. The report has been supplemented by a Hydrological and Hydrogeological Assessment which was also submitted as FI and this report is summarised in section 7.2.2 above.

The rNIS states that the quarry is not located within or adjacent to a European site but that it is located within c.1km of the Shannon Estuary SAC and SPA.

- Figure 1 shows the site boundary and its proximity to the European sites and it identifies that the Crompaun River flows to the W. OSI maps show no major rivers within the proximity of the quarry site. A small, unnamed stream flows to the S of the quarry and joins the Crompaun before entering Kilmurry creek which is part of the broader Shannon Estuary.
- Figure 2 shows that a number of smaller water courses are present in the immediate vicinity of the subject site. The EPA website shows that the upper tidal reaches of the Crompaun are coincident with the SAC/SPA boundary and are confined to the marine and intertidal areas only.
- Figure 3 presents an extract from the Cloon River sub-basin FWPM Management Plan which shows the boundary of the catchment, and indicates that the quarry is located outside this boundary.
- Figure 4 illustrates the local hydrological regime showing the direction of flow of watercourses which is mainly in a SW direction.
- Figures 5 & 6 show the location of the quarry relative to adjacent river catchments, and they indicate that the quarry is not located within the catchment of any significant water course and that smaller watercourses drain directly to the Shannon Estuary.

The rNIS identifies the relevant European sites as:

:

- The Lower Shannon SAC (Site code: 002165)
- The River Shannon and River Fergus Estuaries (Site code: 004077)

The rNIS extrapolates that because the boundaries of these European sites in the vicinity of the quarry only encompass the intertidal and marine areas there can be no impact on species in freshwater

environments such as FFPM or Atlantic salmon. NPWS distribution data indicates that the Crompaun River has no recorded populations of FWPM, Lampreys or Atlantic salmon. The presence of Otter in the vicinity was confirmed by a c.2005 survey and large marine water bodies are home to a resident population of Bottle nosed dolphins.

The rNIS refers to the EPAs ongoing monitoring of biological water quality and there are no monitoring stations on any of the smaller watercourses in the vicinity of the quarry site. There is a monitoring station on the Crompaun River at Carrownisha Bridge and water quality was assessed as Q4 (good status) in 2013 however the WFD status of this portion of the Crompaun River was assessed as moderate indicating unsatisfactory conditions in 2007. The intertidal area of the Shannon Estuary is assessed as unpolluted with only moderate status.

The rNIS analysis section (3.0) states that:

- Quarry noise is unlikely to have disturbed any of the QI species in the European sites because of the separation distances.
- No disturbance from light pollution.
- No organic pollution because of the absence of a WWTS.
- There was some localised dust deposition.
- The impermeable nature of the bedrock has ensured that no surface water has percolated to ground water.
- Surface water is collected in two ponds, it is pumped into the adjacent watercourse and there is no settlement pond or other attenuation measures to prevent sediment from leaving the quarry.

The rNIS analysis of other plans and projects section (4.0) stated that:

- There are no other quarries within the catchment of the Crompaun although sediment discharges also arise from agricultural land.
- The discharge of sediment into nearby watercourses is undesirable and should be addressed.

The rNIS impact prediction section (5.0) concluded that:

- The Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA lie within the zone of influence and there is a clear pathway between quarry and the European sites.
- There are no conservation objectives for water quality in the estuarine zone and no evidence that water quality is negatively affecting high quality habitats and species in this area.
- There are conservation objectives for FWPM and Atlantic salmon in freshwater areas however there is no pathway between the quarry and these freshwater species and there is no connection between the quarry and the Cloon River FWPM population.
- No loss of habitats or disturbance in the European sites.
- Unknown quantities of quarry sediment ultimately enter the Shannon Estuary, however the salt meadow habitat depends on vast supplies of silt and quarry sediment would have little impact.
- None of the QI species in the European sites can be affected by quarry discharges and the overall effect is not significant.

- Notwithstanding this conclusion, the quarry owner has committed to implementing an appropriate solution to ensure sediment in the run-off remains on site.

The rNIS avoidance and mitigation section (6.0) states that:

- An appropriately sized settlement pond will be installed on lands within the overall landholding downstream of all activities.
- The drainage ditch will be diverted to enter this pond along with other run-off from the quarry site.
- This will have no effect on fisheries habitat as this watercourse has a low biodiversity value.

The rNIS conclusion section (7.0) stated that:

- Significant negative effects to the integrity of the SAC and SPA are unlikely to have occurred, to be occurring, arising from either the construction or operation phases.

8.2.2 Remedial Appropriate Assessment

The remedial Appropriate Assessment is set out in the following sections.

Description of the Project

The project is described in section 3.0 of the report above.

European sites of Interest

The quarry site is located to the N of the following European sites:

- The Lower River Shannon SAC (002165)
- The River Shannon and River Fergus Estuaries SPA (004077)

The Lower River Shannon SAC (002165):

The Lower River Shannon SAC is located over 1km from the quarry and the fluvial distance from the settlement pond is c.2km. This European site covers an extensive area which stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head and Kerry Head over a distance of c.120 km. The site includes a wide range of aquatic and terrestrial Annex 1 habitats and Annex 2 species which are identified as Qualifying Interests for the site, which must be maintained in favourable conservation status. A number of species listed on Annex I of the E.U. Birds Directive are also present, either wintering or breeding.

The European site designation also covers several tributaries of the River Shannon including the Cloon River which flows to the E of the quarry. The Cloon River is narrow, fast flowing and acid in nature, and Freshwater Pearl Mussel (*Margaritifera margaritifera*), a species listed on Annex II of the E.U. Habitats Directive, occurs abundantly in parts of this river. A section of this river and its catchment to the E of the quarry are also designated as a Margaritifera Sensitive Zone.

The Annex 1 habitats and Annex 2 species which are listed as Qualifying Interests for the Lower River Shannon SAC are set out in the the following table.

Qualifying Habitats	Qualifying Species
Estuaries	
Mudflats & sandflats not covered by seawater at low tide	Freshwater pearl mussel (<i>Margaritifera margaritifera</i>)
Salicornia & other annuals colonizing mud & sand	
Sandbanks which are slightly covered by sea water all the time	
Coastal lagoons	Bottlenose dolphin
Atlantic salt meadows	Sea lamprey
Mediterranean salt meadows	Brook lamprey
Sandbanks	River lamprey
Vegetated sea cliffs	Atlantic salmon
Large shallow inlets & bays	
Reefs	Otter
Perennial vegetation of stony banks	
Floating water vegetation	
<i>Molinia</i> meadows	
Alluvial forests	

The NPWS site synopsis identifies the main threats and current damaging activities to the site as over-grazing and poaching; reclamation and flood relief schemes (including dredging); invasion by non-native species (cord grass); and domestic and industrial wastes, however water quality is generally satisfactory. Good quality water is necessary to maintain the populations of the Annex II animal species.

The proposed development is not directly connected with or necessary for the management of the Natura 2000 site and, as such, does not undertake measures for the site's conservation management.

The River Shannon & River Fergus Estuaries SPA (004077)

The River Shannon & River Fergus Estuaries SPA is located within c.2km of the quarry. The site comprises the entire estuarine habitat from Limerick City westwards as far as Doonaha in Co. Clare and Dooneen Point in Co. Kerry. The site has vast expanses of intertidal flats which contain a diverse macro-invertebrate community which provides a rich food resource for the wintering birds. Salt marsh vegetation frequently fringes the mudflats and this provides important high tide roost areas for the wintering birds. Elsewhere in the site the shoreline comprises stony or shingle beaches. The site includes a wide range of species listed on Annex I of the E.U. Birds Directive are also present, either wintering or breeding.

The SPA designation covers Clonderalaw Bay and a number of small streams in the area surrounding the quarry flow into this Bay at Kilmurry Creek via the Crompaun River which flows to the E of the quarry and then S to the Bay. The EPA website indicates that the upper tidal reaches of the Crompaun River coincide with the SPA boundaries.

The Conservation Objective seeks to maintain the favourable conservation condition of the bird species that are listed as Qualifying Interests for the River Shannon and River Fergus Estuaries SPA. The objectives for each species is defined by a list of attributes and targets which mainly seek to ensure that populations remain stable and there is no significant decline in population numbers, range or distribution.

The Annex 1 species which are listed as Qualifying Interests for the River Shannon & River Fergus Estuaries SPA are set out in the the following table.

Qualifying species	Qualifying species
Cormorant	Grey Plover
Whooper Swan	Lapwing
Light-bellied Brent Goose	Knot
Shelduck	Dunlin
Wigeon	Black-tailed Godwit
Teal	Bar-tailed Godwit
Pintail	Curlew
Shoveler	Redshank
Scaup	Greenshank
Ringed Plover	Black-headed gull
Golden Plover	Wetlands

The proposed development is not directly connected with or necessary for the management of the Natura 2000 site and, as such, does not undertake measures for the site's conservation management.

Assessment of habitats:

The quarry site and environs are not covered by any sensitive European site designations and section 2.5 of the rNIS summarises the results of a site survey which describes the ecological characteristics of the quarry site and the surrounding area.

The rNIS refers to a drainage ditch which flows along the S site boundary and it states that this watercourse has little value for aquatic wildlife including fisheries. The ditch flows W to join a network of streams that flow into the Crompaun River which ultimately discharges to the River Shannon in the W section of Kilmurry Creek. The River Cloon, which flows to the E of the quarry site discharges to the River Shannon in the W section of Kilmurry Creek.

A section of the Cloon River to the NE of the quarry site contains a population of Freshwater Pearl Mussel and the surrounding catchment is designated as a Sensitive Zone for this species. The Hydrogeological & Hydrological Assessment report provides evidence that ground and surface waters flow in the surrounding area in the SW direction, and that there is no aquatic link between the quarry site and this catchment.

Downstream of the quarry at the Carrownisha Bridge EPA monitoring station, water quality in the Crompaun River is determined to be of Good Ecological Status (Q4). However, it is classified under the WFD as being of Moderate Status which indicates unsatisfactory conditions, despite the results from the EPA monitoring stations which show that the river is unpolluted. The intertidal area of the Shannon Estuary in the vicinity of Kilmurry Creek is recorded as being unpolluted. There is no evidence of any fish or Freshwater Pearl Mussel populations along the Crompaun river downstream of the quarry or any other habitats or species that are listed as qualifying interests for the European sites. However, a small section of Salt Meadow habitat and an Otter commuting area have been recorded in the vicinity of Kilmurry Bay where the two main rivers (Crompaun and Cloon) discharge to.

Qualifying Habitats and Species:

In terms of Qualifying Habitats and Species, the rNIS note that there are no examples of high value Annex 1 habitats or Annex 2 species within or surrounding the quarry site; the drainage ditch provides the only pathway between the quarry and the Shannon Estuary via the Crompaun River at Kilmurry Creek; and the FWPM Sensitive Zone along the Cloon River is located upstream of the quarry with no direct aquatic pathway between the quarry and the catchment area.

Potential Impacts

The rNIS and the Hydrological & Hydrogeological assessment identified the zone of potential impact as the quarry site and the downstream aquatic habitat.

Having considered the information contained in these reports, the separation distance between the quarry site and the Lower Shannon SAC and the River Shannon and River Fergus Estuaries SPA, and the particular qualifying interests of these European Sites, along with the absence of artificial lighting at the quarry, it is considered that noise and air emissions or light pollution would be unlikely to have impacted on the conservation objectives of the European Sites.

Having regard to the scale, geographic extent and the wide variety of habitats and species for which the European sites are designated, several other habitats and species which as listed as qualifying interests for the SAC and SPA, which are located a substantial distance from the quarry, are unlikely to have been impacted by quarry related activities.

The remaining qualifying interests for the European sites that may have been impacted by quarry related activities are listed below.

Lower Shannon SAC:

- Freshwater pearl mussel
- Otter
- Estuaries
- Tidal Mudflats and Sand Flats
- Fisheries (Sea, Brook & River Lamprey and Atlantic Salmon)

River Shannon and River Fergus Estuaries SPA

- Birds (feeding)

Assessment of Significance

The quarry and its related activities have not result in any loss or fragmentation habitats for which the SAC and SPA are designated. However, there may have been an impact on water quality as the result of the past and ongoing uncontrolled release of sediment laden waters into drainage ditch along the southern site boundary which discharges to a nearby watercourse. This discharge could have had an adverse effect on aquatic wildlife, including macro invertebrates and fish populations and feeding birds.

The ***Freshwater Pearl Mussel*** is listed as a qualifying interest for the Lower River Shannon SAC and this designation extends along the River Cloon to the E of the quarry site. According to the Map 15 of the NPWS Conservation Objectives document, sections of this river contains suitable habitat and a designated FWPM sensitive area to the NE of the quarry. The applicant's Hydrogeological & Hydrological report indicate that the direction of ground and surface water flow is SW away from the quarry towards the River Shannon, and that quarry is located outside of the Margaritifera Sensitive Zone and downstream of this river and its tributaries. As there is no direct aquatic link between the quarry and the Cloon River and the FWPM Sensitive Zone it is not considered likely that quarry activities would have impacted on this particular qualifying interest for the SAC or its conservation objectives.

The ***Otter*** is also listed as a qualifying interest for the Lower River Shannon SAC and Map 17 of the NPWS Conservation Objectives document indicates that the quarry site is located outside of the designated Otter Commuting Zone which is located along the Shannon River and includes Kilmurry Creek. It is not considered likely that quarry activities would have had a significant impact on this particular qualifying interest for the SAC or its conservation objectives.

Estuaries and Tidal Mudflats & Sand Flats are listed as qualifying interests for the Lower River Shannon SAC. Maps 4 and 5 of the NPWS Conservation Objectives document indicate that the quarry is located within c.1.5km of the SAC site boundary at Kilmurry Creek and Map 9 indicates the presence of a small area of Salt Meadow at the mouth of the Creek. The NPWS document states that this area mainly comprises sand to mixed sediment and it is unlikely that quarry related deposits would have any significant adverse impacts.

Sea, Brook & River Lamprey and Atlantic Salmon are also listed as qualifying interests for Lower River Shannon SAC. Although these species are not known to have a significant presence in the River Crompaun, the deposition of quarry related sediments at Kilmurry Creek have the potential to affect these species, but not to any significant extent having regard to the size of the creek relative to the scale of the SAC.

Feeding birds could be affected by sediment laden water which has the potential to affect food supplies by way of smothering for several of the species that are listed as qualifying species for the River Shannon and River Fergus Estuaries SPA. However, the size of Kilmurry Creek relative to the scale of the SPA is such that the overall impact on feeding birds would have been minimal.

Conclusion:

Having regard to all of the above, it is considered unlikely that quarry related activities have not had any significant long term adverse effects on the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA. This is because of the non-porous nature of the substrate, the scale of quarry operations and the ongoing water management regime (which requires improvement), the relatively low flow rate in the drainage ditch, and the separation distance between the quarry and Kilmurry Creek and the European site boundaries. The

absence of any SAC or SPA qualifying interests in the River Cromptoun and its tributaries and the absence of a direct connection to the Cloon River and the FWPM Sensitive Zone is also a significant factor.

However, the applicant should be required to continue with the drainage works and the installation of a settlement pond of an appropriate size relative to the scale of the quarry and downstream of quarry works. This would serve to control the release of quarry water to the drainage ditch and subsequent watercourses which would in turn minimise the potential adverse impacts on the qualifying interests for the European sites and the site's conservation objectives.

Cumulative Impacts

There are no other quarries in the vicinity. There are several houses and farms in the area and sediment discharges may arise from run-off from areas of hard standing and agricultural land. Despite the presence of siltation in the SW settlement pond and downstream of the quarry, the stream is too small and far removed from the River Shannon to have a significant cumulative negative impact on the larger river.

Mitigation:

The water management system including ponds forms part of the overall quarry development and the quarry owner has committed to installing an appropriately sized settlement pond on lands within the overall quarry landholding at a point downstream of all quarry activities. The operation of the water management and settlement system is the primary measure in mitigating potential impacts on the SAC and SPA. Full details in relation to the construction, operation and maintenance of this system should be required by way of a planning condition. Any subsequent discharge from the settlement lagoons to any nearby watercourses should be subject to a trade effluent licence.

AA Conclusion

I consider it reasonable to conclude on the basis of the information available, that the development the subject of this substitute consent application, either individually or in combination with other plans or projects has not adversely affected the integrity of the Lower River Shannon SAC (Site code: 002165) or the River Shannon and River Fergus Estuaries SPA (Site code: 004077), or any other European sites in the area, in view of the site's conservation objectives.

8.3 Other issues

The planning authority does not recommend the attachment of a condition relating to financial contributions and I consider it appropriate that the application of a bond for the restoration of the site be attached.

8.4 Conditions

In the course of the application a number of conditions are recommended in respect of the application by both the planning authority and the HSE. The application for substitute consent refers to the past development of part of a larger quarry site only, and a number of these conditions would, therefore, not be relevant.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The quarry has not given rise to significant adverse effects on any nearby European sites and ongoing impacts are limited in terms of scale and significance. I therefore recommend that the application for substitute consent be granted for the reasons and considerations subject to conditions set out below.

REASONS AND CONSIDERATIONS

The Board had regard to, *inter alia*, the following-

- (a) the provisions of the Planning and Development Acts, 2000 to 2015, as amended, and in particular Section 37L,
- (b) the 'Quarry and Ancillary Activities, Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in April, 2004,
- (c) the provisions of the Clare County Development Plan 2011-2017,
- (d) the Remedial Natura Impact Statement submitted with the application,
- (f) the report and the opinion of the planning authority under section 37L (12) (a),
- (g) the submissions/observations made in accordance with regulations made under Article 270(1) of the Planning and Development (Amendment) (No. 2) Regulations 2015,
- (h) the planning history of the site,
- (i) the pattern of development in the area,
- (j) the details contained within application for substitute consent on the site ref. SU03.SU0134,
- (k) the nature and scale of the development the subject of this application, and
- (l) the Inspector's Report.

The Board completed an Appropriate Assessment in relation to the subject development and concluded that the remedial Natura Impact Statement identified and described adequately the likely significant effects European sites of the development.

The Board considered that the Inspector's report was satisfactory in addressing the ecological effects of the subject development and also agreed with its conclusions in relation to the acceptability of mitigation measures proposed and residual effects and that the subject development would not be likely to have a significant effect on any European sites in the area.

It is considered that, subject to compliance with the conditions set out below, the subject development would not be contrary to the proper planning and sustainable development of the area.

CONDITIONS

1. The grant of substitute consent shall be in accordance with the plans and particulars submitted with the application on the 18th day of September 2015 and the further information received by the Board on the 15th day of October 2015 and the 15th day of March 2016 and relates only to works undertaken prior to the decision of Clare County Council to serve notice on 22nd day of 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. All environmental mitigation measures identified within the remedial Natura Impact Statement shall be implemented in full save as may be required in order to comply with the conditions attaching to this order.

Reason: To protect the environment and amenities of the area and to ensure the proper planning and sustainable development of the area.

3. A detailed restoration scheme for the site 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) The scheme shall incorporate tree planting to screen the quarry from key vantage points along the local road network.
 - (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.

4. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –
 - (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including site restoration) relating to the proposed development,

- (b) employ a suitably-qualified archaeologist who shall monitor all excavation works, and
- (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site during the site restoration phase and to secure the preservation and protection of any remains that may exist within the site.

- 4. The settlement pond located in the SW section of the site shall have sufficient capacity to cater for extreme rainfall events and management measures relating to release of stored water shall be provided. There shall be no discharge of quarry water to any roadside drains or adjacent watercourses in the absence of a Discharge Licence.

Reason: In order to protect ground and surface water from contamination and pollution.

- 4. 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.

5. 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.

Karla Mc Bride
Senior Planning Inspector
29th November 2016