



An  
Bord  
Pleanála

## Inspector's Report

**SU16.SU0132**

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<b>Development</b>	Quarry
<b>Location</b>	Cregaree, Cong, County Mayo
<b>Planning Authority</b>	Mayo County Council
<b>Applicant(s)</b>	McGrath's Limestone Works
<b>Type of Application</b>	Application for Substitute Consent under Section 177E
<b>Submissions</b>	Mayo County Council Geological Survey of Ireland Dept. of Arts Heritage & the Gaeltacht (NPWS) Health Service Executive
<b>Observations</b>	None
<b>Date of Site Inspection</b>	27 <sup>th</sup> October 2016
<b>Inspector</b>	Karla Mc Bride

## **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)(i) determination and section 261A(3)(a) decision by An Bord Pleanála and the application is accompanied by a remedial Environmental Impact Statement (rEIS) and a remedial Natura Impact Statement (rNIS)
- 1.2 Substitute consent permission is being sought for the N section of an existing limestone quarry which is located to the NW of Cong in County Mayo. A small section of the existing quarry is also located within County Galway. The quarry site occupies a rural area, it is located in the townland of Cregaree to the N of the R345, and vehicular access is off this road. The surrounding area is agricultural in character, the site boundaries are mainly defined by fencing and embankments and the lands slope down from N to SE. There are several dwelling houses located along the local roads to the E, W and N of the quarry and there is a salmon fishery to the SE at Cong village. The site adjoins the Cong Canal to the E which connects the Lough Mask and Lough Corrib SACs and SPAs and there are several other European sites, NHAs and Recorded Monuments in the surrounding area.
- 1.2 The limestone quarry comprises an overall area of c.67.7ha and it contains three separate sections including the existing quarry, the substitute consent area and a greenfield area of undisturbed land. The rock in the existing quarry is extracted by both blasting and mechanical means, and the extracted material is mainly transported to the S section of the quarry for processing. Processed material is either sold or used to produce ready mix concrete, concrete products such as blocks, asphalt products and crushed lime products. Blasting under licence occurs at predetermined times. The excavated rock is crushed, screened in mobile crushers, graded, washed and stockpiled for transportation off-site. This material is weighed on the weighbridge at

the site entrance in the SE section of the quarry which is also occupied by the site office and fuelling area. There is a large settlement lagoon system located in the SE section of the quarry parallel to the site boundary with the Cong Canal and there is a smaller pond located in a more central position. There is a scrap storage area located in the NW section.

- 1.3 The “C” shaped substitute consent area is located in the N section of the overall quarry site and it comprises an area of c.10.58ha. The overburden was removed and used to construct berms and the top layer of rock has been removed from most of the site. More extensive rock extraction has occurred in the vicinity of the S site boundary with the existing excavated quarry. The material was extracted, transported and processed in a similar manner to that outlined in section 1.2 above for the existing quarry. No fuel was stored in this area and there are no office facilities or services. Surface water is directed to a sump located in the lowest point of the substitute consent area before it is pumped to the settlement lagoon system in the SE section of the existing quarry for discharge to the Cong Canal under licence from the County Council.
- 1.4 The quarry currently employs around 50 people in quarrying and quarry related activities including road construction projects. The hours of operation are 07.00-18.00 Monday to Friday and 07.00-16.00 Saturday, and the quarry is not in operational on Sundays and public holidays.

## **2.0 SUBSTITUTE CONSENT APPLICATION**

- 2.1 The development consists of the following works at the existing c.10.58ha quarry site and the application for substitute consent includes all associated site works and ancillary development including:

- Overburden stripping and berm construction
- Extraction of building stone
- Drilling and blasting of in-situ material
- Excavation of material and transport to existing quarry
- Processing, products and transportation to market

The following plant and equipment was used:

- Excavators x 2
- Wheel loader x 1
- Dumper trucks x 2
- Tractor and Bowser x 1
- Drilling rig x 1

The application was accompanied by the following documents:

- Remedial Environmental Impact Statement (rEIS)
- Remedial Natura Impact Statement (rNIS)
- Further information in relation to ongoing ecological surveys

### **3.0 SITE HISTORY**

#### **3.1 Pre 1964 and relevant planning permissions**

3.1.1 The planning authority accepted that this quarry was in operation prior to 1964 and the following planning application is relevant:

**Reg. Ref.73/1614:** Permission granted by MCC to open the quarry and construct a crushing and block making plant subject to 4 conditions.

## **3.2 Enforcement and licences**

3.2.1 No planning enforcement details attached and details of environmental and discharge licenses on case file.

## **3.3 Section 261 Registration**

3.3.1 This Substitute Consent application relates to a limestone quarry which was registered in March 2007 under S.261 (Q18) of the Planning and Development Act, 2000 and conditions were attached. The overall landholding was stated to be 67.5ha with a 67.5ha extraction area.

- Condition no.2 restricted quarrying works to within the lands outlined in red on the map submitted on 05/04/05 unless permission is granted.
- Condition no.3 required the submission of details in relation to the extent of the extracted and non-extracted areas.
- Condition no.19 required the submission of a hydro geological report to establish the winter water table level and the potential adverse impacts on groundwater in the vicinity.
- Other conditions related to the implementation of mitigation measures, record keeping, times of operation, traffic management, blasting, control of noise, dust and water pollution, environmental monitoring, waste management and landscaping/restoration.

## **3.4 Section 261A Determination**

3.4.1 The overall site comprised 67.5ha which was registered under Q18 as summarised in section 3.3 above and the site included the lands located to the N of the original quarry.

- 3.4.2 The planning authority decided that section 261A 3(a) applied with regard to the planning history of the site which indicated that the quarry commenced operation on or after the 1<sup>st</sup> day of October 1964 or that permission was granted for the quarry under the Planning and Development Acts, and that the requirements in relation to registration under S.261 were fulfilled.
- 3.4.3 Following a review under QV16.QV0288, the Board decided to confirm the decision of the Planning Authority that the quarry commenced operation prior to the 1st day of October, 1964, and that the requirements in relation to registration under section 261 of the Planning and Development Act, 2000, as amended, were fulfilled.
- 3.4.4 The Board determined that development was carried out after the 1<sup>st</sup> day of February 1990 which would have required, having regard to the Environmental Impact Directive, an Environmental Impact Assessment but that such a determination was not carried out or made.
- 3.4.5 The Board also determined that the likelihood of significant effects on the candidate Special Areas of Conservations arising from development at this quarry after 1st March 1997 by itself, or in combination with other plans or projects, could not be excluded in view of the conservation objectives of that site, and that an Appropriate Assessment would have been required.
- 3.4.6 The owner/operator was required to apply for Substitute Consent for the unauthorised works with an accompanying remedial Environmental Impact Statement and remedial Natural Impact Statement.

### **3.5 Legal proceedings**

3.5.1 The owner/operator sought a Judicial Review of the Council and the Board decisions which were upheld by Mr Justice Charleton who directed McGrath Limestone Works Ltd. to apply to the Board for Substitute Consent. The owner/operator subsequently appealed this decision to the Supreme Court. The legal proceedings under Appeal no. 417/2014 have been postponed pending the outcome of the Board's determination on this substitute consent application.

### **3.6 Clarification of quarry status**

3.6.1 The owner/operator sought clarification from the planning authority in October 2014 in relation to the present status of the quarry. The planning authority confirmed that the Substitute Consent area comprises 10.58ha in the N section of the overall landholding and that the use of the pre-1963 area continues subject to the conditions attached to that area under Section 261.

## **4.0 PLANNING POLICY CONTEXT**

### **4.1 Quarries and Ancillary Activities Guidelines for Planning Authorities, DoECLG 2004.**

4.1.1 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. They can only be worked where they occur and pits and quarries tend to be located within 25km of urban areas where construction occurs. Advice is also provided in relation to environmental protection, visual impacts and residential amenity.

## 4.2 Mayo County Development Plan 2014-2020

4.2.1 The following sections are considered relevant to this case.

**Objective EI-01:** seeks to ensure that the development of aggregate resources (stone and sand/gravel deposits) is carried out in a manner, which minimises effects on the environment, including the Natura 2000 network, amenities, infrastructure and the community, and has full regard to the principles of sustainability.

**Objective EI-02:** seeks to ensure compliance with the Quarry and Ancillary Activities Planning Guidelines for Planning Authorities DoEHLG (April 2004) or any new or subsequent quarry guidance.

**Objective AN-02** - noise levels should not exceed accepted standards.

**Objective WQ-01** - deals with the protection of water quality.

**Objectives LP-01/02/03** - deal with landscape character.

## 4.3 Galway County Development Plan 2015-2021

4.3.1 The following sections are considered relevant to this case.

**Policy EQ 1** – seeks to have regard to evolving best environmental management practice as set out in relevant guidelines.

**Policy EQ 2** – seeks to ensure adequate supplies of aggregate resources to meet future growth needs within the County, facilitate the appropriate exploitation of such resources, and ensure that this does not adversely affect the environment or adjoining existing land uses.



**Objective EQ1** – seeks to protect areas of geo-morphological interest, groundwater and important aquifers, important archaeological features NHAs and European Sites from inappropriate development.

**Objective EQ 2** - requires the following in relation to the management of authorised aggregate extraction:

- (a) Compliance with the requirements of all relevant guidelines.
- (b) Appropriate investigations into the nature and extent of old quarries.
- (c) Have regard to the County Landscape Character Assessment.
- (d) Ensure minimal adverse impact on the road network.
- (e) No adverse impacts on residential or environmental amenity.
- (f) Protect all known un-worked deposits from development.

**Objective EQ 3** – seeks to encourage the use of quarries and pits for sustainable management of post recovery stage construction and demolition waste, as an alternative to using agricultural land, subject to normal planning and environmental considerations.

## **5.0 SUBMISSIONS**

### **5.1 The Planning Authority**

The Planning Authority report contains the following sections:

- Part 1 notes the legal position of the quarry.
- Part 2 provides information related to the development.
- Part 3 identifies the effects of the development on the environment.
- Appendix 1 contains suggested conditions.

## **Part 2: Required information**

- Relevant planning history cases are summarised.
- No history of enforcement on the site.
- List of relevant Development Plan policies and objectives.
- SC works are consistent with the provisions of Development Plan.
- No information on current significant effects on the environment or a European site from quarry works, on site or in the surrounding area.
- No information on anticipated significant effects on the environment or a European site from works, on site or in the surrounding area.
- No information of previous significant effects on the environment or a European site from works, on site or in the surrounding area.
- No information on any remedial measures recommended or undertaken for quarry operations.
- The existing and proposed remedial & mitigation measures will ensure that the SC works will not have significant effects on the surrounding area, the environment or a European site.
- The requirements of 8.1.2 of the revised rNIS (New Proposed Mitigation No.2 – Operating Times) should be conditioned.
- Planning permission for substitute consent should be granted.

## **Part 3: Effects on the environment - rEIS**

### **Human beings:**

- Positive impact on employment and the local economy.
- Insignificant negative impact on agricultural lands uses in the area.
- Nearby houses are buffered by earth berms and planting.
- Quarry generally not visible from public roads.
- Residential properties have the potential to be affected by noise emissions, the rEIS states that no complaints have been received by the applicant, and the Council has also not received any.

**Fauna & flora:**

- Potential direct and indirect impacts on flora and fauna resulting from land take and loss of habitats, disturbance and discharges.
- Loss of agricultural habitat will not significantly impact any species.
- Species already affected and disturbed by ongoing quarry activities.
- Discharges and emissions have not been significant.
- No protected species identified in the ecological surveys.
- There is only one other small quarry in the area so limited potential for cumulative impacts.

**Soils:**

- Loss of soil & overburden is a permanent but not significant impact.
- Loss underlying rock is a permanent but not significant impact.
- Mitigation measures are already in place to maintain and manage plant and machinery and to reuse soil and overburden in berms.

**Water:**

- Settlement water from the SC site will drain to settlement lagoons which discharge to the Cong Canal (under licence).
- Works above the water table with no impact on groundwater.
- Rainwater drains through the quarry walls to the quarry floor where it is collected and pumped to the settlement lagoon.
- Washwater for crushing & screening is recycled from the lagoon.
- Spills & leaks from machinery stored in the SC area could have given rise to surface water contamination.
- EPA data indicates that water quality downstream is Good.
- EIS data indicates that lagoon water complies with Environmental Quality Standards and that there is sufficient capacity in the Cong Canal to accept discharge.
- Unlikely that the works have had, or will have, a significant impact on groundwater or surface water quality.

- Mitigation measures include management & maintenance of plant and equipment, on-going surface water management, and monitoring of water quality.

**Air and climate:**

- Main impacts relate to dust, noise and vibration.
- Many of the houses in the vicinity post-date the quarry.
- Dust monitoring has been carried out since 2007 with levels of below 350mg/sq.m/day in the SC area.
- Mitigation measure include management of plant and equipment, and installation of wheel/under body wash facilities.
- EIS noise monitoring indicates levels of below 55dB(A) at nearest noise sensitive locations.
- The only other source of noise is from along nearby roads with no cumulative impacts predicted.
- EIS vibration monitoring data indicate that the standard operating parameters for quarry blasting have been met.
- Mitigation measures include mechanisms to maintain and manage vehicles and plant, maintenance of access roads, and monitoring.

**Landscape:**

- Located in a moderately sensitive landscape & along a scenic route.
- The landscape has been altered but the site is screened from view.
- Restoration and re-vegetation will minimise residual impacts.
- No other nearby quarries or industrial sites and no cumulative impacts predicted.

**Material assets & cultural heritage:**

- Loss of mineral resource is a minor negative impact.
- No items of cultural heritage in the vicinity.
- The road network has the capacity to accommodate quarry traffic.
- Some negative impact for traffic users entering/exiting the two county roads bounding the site (not fully addressed in the EIS).

### **Inter-relationship between the foregoing:**

- Human beings, visual, noise, dust, material assets and traffic.
- Water & ecology.

### **Part 3: Effects on the environment – rNIS**

- Council generally concurs with the conclusions of the revised rNIS (including the Bat Impact Assessment).
- The NIS would have benefited from reference to the impact on the development on the Conservation Objectives of those Qualifying Interests and special Conservation Interests in relation to:
  - The integrity of nearby European sites.
  - Impacts on surface and ground water.
  - Detailed assessments to support the conclusion of no negative impacts on protected species and sites.
  - A detailed analysis of the mitigation measures.
  - Impacts related to decommissioning & restoration.

### **Appendix 1: suggested conditions**

Condition no.1: standard compliance

Condition no.2: implementation all mitigation measures

Condition no.3: time constraints for works and restoration

Condition no.4: total annual output

Condition no.5: maximum extraction/excavation depth

Condition no.6: record of all extractions

Condition no.7: hours of operation

Condition no.8: details of blasting and frequency restrictions

Condition no.9: restrictions on vibrations from blasting

Condition no.10: operational noise limitations

Condition no.11: operational dust limitations

Condition no.12: wheel wash facilities

Condition no.13: bunding of over ground storage tanks

Condition no.14: drainage management plan  
Condition no.15: no discharges to the public road  
Condition no.16: details of the Environmental Management System  
Condition no.17: landscaping details  
Condition no.18: bonds  
Condition no.19: financial contributions (S.48)  
Condition no.20: financial contributions (S48(2)(c))

## **5.2 Prescribed bodies**

5.2.1 The application was to the following prescribed bodies:

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

5.2.2 The **DCE&NR (Geological Survey of Ireland)** requested that:

- The applicant consults the Geological Heritage Guidelines for Extractive Industry with regard to final restoration plans.
- Rock exposures could be left visible, if appropriate, in order to promote geo-diversity and geo-conservation.

### 5.2.3 Health Service Executive:

- **Air:** adequate dust monitoring of quarry activities is undertaken and there was no evidence of environmental dust on the day of the visit.
- **Noise:** monitoring results from 6 locations indicate that the LAeq value was below the recommended guideline value of 55dB(A) during the day and 45dB(A) during the night.
- **Vibration:** monitoring results indicate that levels were below the recommended guideline values; local residents are informed about blasting; the Blast Procedure forms part of the EMS; and the Complaints Register contained one complaint from 2013.
- **Water:** no groundwater dewatering has taken place; no deep excavations in the SC area; surface water flows into settlement lagoons which discharge to the Cong Canal; no wells within c.4km or downgradient and the local water supply is from Lough Mask; no evidence of water quality impacts; and the EMS includes mitigation measures to prevent contamination of ground and surface water.
- The quarry has been operational for many years; the HSE has no concerns provided the Environmental Management System is maintained and measures outlined in the rEIS are implemented.

### 5.2.4 Department of Arts, Heritage and the Gaeltacht:

- The site is located between Lough Mask and Lough Corrib and within 1-3km of 3 European sites, the lakes are hydrologically and hydro-geologically linked, and quarry water discharges to the Cong Canal which runs between the 2 lakes.

- The rNIS identifies the potential for the quarry to have significant effects on Lesser Horseshoe Bat and a series of surface and ground water dependent habitats which are part of the SACs.
- In relation to Lesser Horseshoe Bat, the rNIS acknowledged that:
  - Bat surveys were undertaken at the least optimal time of year and surveys will continue throughout the summer.
  - Site is within area with foraging potential.
  - Results of the ongoing survey should be made available to supplement the rNIS.
  - Attention should focus on the in-combination/cumulative effects of habitat loss, fragmentation and barrier effects.
- In relation to water dependent habitats and species that are QIs for the SACs, the rNIS needs to consult/cross reference data in the rEIS to complete the AA in order to reach robust conclusions.
- In relation to Lough Corrib, the lake is the likely receptor of emissions from the quarry and it contains 3 x Annex 1 habitats (but only 2 are QIs for the SAC) and 1 x Annex 2 aquatic plant species which is a QI for the SAC (Slender Naiad).
- In relation to the AA, the final analysis should be with respect to the implications for the COs and integrity of the European sites, bearing in mind any impediments, delays or interruptions to maintaining or restoring favourable conservation condition of habitats or species that could have been caused or perpetuated by development.
- Before clearance the subject site might have supported a range of habitats including Native woodland, Limestone pavement (Priority habitat) with scrub, Grassland and Heath communities.

**5.3 Observers:** No submissions received.



## 6.0 RESPONSE SUBMISSIONS

- 6.1 The **applicant** was requested to respond to the issues raised by the NPWS in relation to the ongoing ecological surveys and the consideration of likely significant effects on the conservation objectives of European sites in the vicinity. These issues are summarized in section 5.2.4 above.
- 6.2 The applicant responded by stating that these surveys were being carried out, as stated in the rNIS and rEIS, and that the results will be available at the end of September 2015. Once the surveys are completed, the findings will be submitted to supplement the rEIS and rNIS as part of the application. However, the applicant went on to state that a request for this information would be best be dealt with by way of a FI request in the interest of fair procedure. The applicant was subsequently advised that FI may be sought in due course.
- 6.3 The applicant subsequently submitted an application for further development works at the quarry by way of Section 37L (7) (b) of the Planning and Development Act 2000 (as amended).
- 6.4 The applicant also submitted unsolicited further information in relation to this substitute consent application which responded to the issues raised by the NPWS. This submission was returned to the applicant as it was deemed to have been received after the expiration of the appropriate period for response submissions.
- 6.5 The **HSE** had no further comments to make in relation to any of the submissions received by the Board from Prescribed Bodies.

## 7.0 FURTHER INFORMATION

- 7.1 The applicant and the planning authority were requested to submit further information.
- 7.2 In relation to the **applicant**, having regard to the concerns raised in the response submissions, which are summarised in sections 6.1 and 6.2 above, and to the applicant's request that the survey data be sought by way of an FI request, the applicant was requested to formally respond, by way of FI, to the issues raised by the NPWS, and to amend the rEIS and rNIS accordingly. The applicant was also requested to amend these documents to take account of the Kildun Souterrain SAC.
- 7.2 The applicant's response to this request sought clarification of the survey dates and requested that the information, which consists of updates to existing surveys, be submitted as an addendum to the rEIS and rNIS as the information is not deemed to be significant. The survey dates were clarified and the applicant was advised, for the avoidance of doubt, and in the interest of clarity and fair procedure, to respond in full to the issues raised in the NPWS submission, and that any subsequent changes to the rEIS and rNIS should be shown as tracked changes.
- 7.3 The applicant submitted the outstanding survey data and updated the rEIS and rNIS to include these results, and the Kildun Souterrain SAC was included in the documents. The applicant noted that this SAC was evaluated in the Bat Assessment Report but that it was screened out from inclusion in the rEIS and rNIS because of the separation distance from the site and the changes that have taken place in the vicinity of the SAC. The applicant concluded that the results of the additional studies did not change any of the conclusions or mitigating measures and that the concerns of the NPWS had been addressed.

- 7.4 This outstanding survey data and the resultant minor amendments to the rEIS and rNIS along with the inclusion of the Kildun Souterrain SAC do not constitute significant further information. Although the applicant has not fully responded to the concerns raised by the NPWS in relation to the consideration of likely significant effects on the conservation objectives of European sites in the vicinity, I am satisfied that there is now sufficient information before the Board to undertake an remedial Environmental Impact Assessment and remedial Appropriate Assessment of this application for substitute consent.
- 7.5 The **planning authority** was requested to submit a report which includes the items set out in section 177I (2) (a), (b) (c), (d) and (e) of the Planning and Development Acts 2000-2014, and the response is summarised in section 5.1 above.

## **8.0 ASSESSMENT**

8.1 The main issues arising from this application for substitute consent for development at the c.10.58ha quarry are:

- Development plan policy
- Environmental impacts (and remedial EIA)
- Ecological impacts (and remedial AA)
- Conditions

### **8.1 Development Plan 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 Mayo and County Galway Development Plans for the area.

## **8.2 Environmental Impacts**

### **8.2.1 The Remedial Environmental Impact Statement**

The applicant submitted a remedial Environmental Impact Statement (rEIS) which describes the receiving environment, identifies potential impacts and assesses potential for likely significant impacts on the standard range of environmental components usually contained in a conventional Environmental Impact Statement (EIS). The rEIS describes the existing mitigation measures at the quarry and proposes new measures, it identifies cumulative impacts and assesses residual impacts post mitigation. Most sections of the rEIS contain survey results, data analysis and maps. The Technical Appendices (which include an Ecology Report, Bat Impact Assessment, Hydrological & Hydrogeological Assessment and Traffic Impact Assessment) are

located the end of the document. The rEIS was accompanied by a non-technical summary. The applicant was requested to make minor amendments to the rEIS to take account of ecological surveys which continued after the application for substitute consent was submitted.

## **8.2.2 Remedial Environmental Impact Assessment**

A summary of the remedial Environmental Impact Statement (rEIS) and the remedial Environmental Impact Assessment (rEIA) are set out in the following sections.

### **8.2.1 Human beings**

**rEIS:** Section 4 of the rEIS deals with the impact of the quarry on human beings. It contains population, socio economic, housing, employment, tourism and recreational data for the area and confirms that a number of houses are located within the vicinity of the quarry. It notes that 50 people are directly employed and a further 50 are indirectly employed by the quarry, and states that the quarry indirectly benefits the wider economy. The rEIS states that appropriate measures are in place to ensure compliance with relevant health and safety legislation, and that other sections deal with impacts on human beings.

**rEIA:** The site boundaries are defined by a mix of embankments and wooded area and vehicular access to the quarry is via an entrance located along the S site boundary with the local road. The planning authority stated that nearby houses are buffered from disturbance by earth berms and planting, although residential properties have the potential to be affected by dust and noise emissions the Council has also not received any complaints and the quarry is generally not visible from public roads including the scenic route to the S along the R345. The planning authority also raised concerns in relation to operational hours, and the effects of extraction, processing and blasting, and suggested conditions to address these concerns.

However, such conditions would not have any effect as the application for substitute consent relates to past and not future works. The HSE has no concerns provided the Environmental Management System is maintained and the measures outlined in the rEIS are implemented.

- No residual impacts are anticipated.

### **8.2.2 Flora and fauna**

***rEIS:*** Section 5 of the rEIS deals with the impact of the quarry and its ancillary activities on flora and fauna in the quarry and the surrounding area. Several desktop and field surveys were undertaken prior to and after this application was lodged in relation to habitats, flora and fauna. The post application seasonal data was submitted at a later date. The zone of influence was defined as the SC area, the overall quarry and the surrounding area (3km radius of the quarry and downstream at Lough Corrib). Impacts were assessed in relation to the location of European sites; the extent of noise, vibration and dust impacts on ecological receptors; downstream separation distance; and the location of Lesser Horseshoe Bat colonies and suitable foraging habitat.

The rEIS states that the main habitat in the SC area (before extraction) was dominated by grassland/scrub and improved grassland, with woodland (including hedgerows), scrub, and limestone pavement (Priority habitat) with grassland, heath and scrub, and the area was suitable for a range of flora, fauna and invertebrates. The SC area contained three Flora Protection Order flowering plants (Chives, Lady's Tresses and Wood Bitter-vetch (which is endangered)) and four species of moss which are listed as threatened. Most birds, including those which are listed as conservation interests for the nearby European sites, are unlikely to have regularly used the SC area because of the activities in the overall quarry.

The SC area may have contained several protected species of mollusc, butterfly and odonata which are threatened or near threatened, as well as Smooth newt and Common frog. The SC area provided suitable habitat for several protected species of mammal (including pine martin, otter, stoat, pigmy shrew and bank vole), and suitable foraging and roosting habitat for several protected species of bat (including Daubentons, Natters, Lesser Noctile, Pipistrelles, Brown Long-eared and Lesser Horseshoe).

The rEIS states that the main habitat in the SC area (after extraction) is now classified as “Active quarries and mines with some re-colonising bare ground” with some narrow sections of “Limestone Pavement” along the W and NW boundaries. No significant plants or mammals were recorded during the surveys. Otter is known to frequent the undeveloped Cong Canal to the E of the SC area. No suitable habitat for roosting, hibernating or breeding bats (including Lesser Horseshoe Bats associated with nearby SACs) was identified, although bats are likely to commute along a large stone wall at the W boundary and forage over vegetated areas. Some foraging birds were recorded in the SC area (Pied wagtail, Meadow pipit & Linnet) and in the overall quarry (Peregrine falcon, Kestrel, Sparrowhawk & Grey wagtail), along with two pairs of breeding Ringed plover. Common frog was recorded on the berm in the SC area which also contains suitable areas for Common lizard.

The rEIS stated that quarry activities have resulted in the irreversible loss of habitats (including limestone pavement), flora (including rare and/or protected species) and fauna (including mammals, birds, bats, amphibians and invertebrates) which is significant at local level. Impacts related to noise, vibration, dust and water quality were assessed as neutral as they are tightly regulated and managed. Quarry noise appears not to have affected bat hibernation sites to the NE and S of the quarry as their population number are stable.

The rEIS states that the creation of berms and the preservation of natural habitats along the S and E boundaries have contributed to biodiversity and foraging opportunities for bats (including Lesser Horseshoe Bat). Existing mitigation measures include the creation of berms as wildlife corridors; training; and noise, dust, waste and water quality management. Proposed mitigation measures include the creation of new berms along the W boundary to provide an ecological corridor; ongoing ecological surveys; no works during the breeding seasons for Ringed Plover; and no blasting during the breeding season for Peregrine Falcon. No cumulative or residual impacts predicted.

**rEIA:** The SC area, the overall quarry and the surrounding area originally comprised a range of habitats, flora and fauna. This included protected (and priority) habitats such as Limestone Pavement within the SC area, and a variety of lakes, watercourses, woodlands and caves in the wider area (including Lough Mask, Lough Corrib and Ballymaclancy Cave). It also included several protected species which either occupied, frequented or foraged in the SC area (plants, small mammals, bats, amphibians and invertebrates). Some of these species were identified as endangered, threatened or nearly threatened (including Wood Bitter-vetch, 2 species of moss and invertebrates).

The SC area has been cleared of all vegetation, soil and overburden, and the top layer of limestone rock has been extracted to a depth of c.2-2.5m although a small section that interfaces with the original quarry has been extracted to a depth of c.14m. This loss of habitat, flora and fauna represents a direct, negative, permanent and irreversible impact that cannot be mitigated for. Although these impacts are of a mainly local scale, the impact of the loss of endangered and threatened species from within the SC area could be regional and national in significance. However, the area surrounding the SC area and the adjacent habitats, flora and fauna have not been significantly affected by quarry activities, and it is possible that some of these species continue to occupy or frequent the neighbouring lands.



In relation to indirect impacts, several sites of importance to bats in the wider area (for roosting, breeding, hibernation and foraging) appear not to have been significantly affected by quarry noise, and bats still use the perimeter of the SC area, overall quarry and the surrounding area for commuting and foraging. Birds also frequented the SC area before the extraction works although not to any significant extent because of the noise and disturbance associated with quarry activities. Although the loss of foraging grounds has had an effect on birds, the impacts are not considered significant, and some species continue to use the area.

The reuse of the excavated soils and overburden to form berms around the SC area will contribute to biodiversity, enhance commuting routes for bats and other small animals, and provide access to foraging opportunities for several species of bats and birds. The quarry reinstatement proposals should take account of these concerns.

The concerns raised by the NPWS and the planning authority in relation to inadequacies in the rNIS assessment are noted and will be addressed in section 8.3 below. The NPWS concerns in relation to the ongoing ecological surveys are noted and the survey data has since been submitted by the applicant. The range of habitats listed by the NPWS that may have occupied the SC area prior to development (including Native woodland, Limestone pavement (Priority habitat), Grassland and Heath communities) is also noted. The HSE did not raise any concerns in relation to flora and fauna.

The SC area has a direct aquatic link to a number of watercourses and European sites (including the Lough Corrib SAC to the S) in the wider area by way of its connection to the overall quarry. Some of these watercourses and European sites could have been affected by past quarrying activities in the SC area. However, this issue will be addressed in more detail in section 8.2.4 and section 8.3 below.

- No residual impacts anticipated.

### 8.2.3 *Geology and soil*

**rEIS:** Section 6 of the rEIS deals with the impact of the quarry and its ancillary activities on geology and soils within the quarry and the surrounding area.

The rEIS states that the topography of the area is gently sloping from N to SE (15mOD to 26mOD). The underlying bedrock comprises a type of Cong Limestone (CO) which is virtually impermeable, although the Cong Canal Formation (NL) to the W is more porous. Soils Maps indicate that the site originally comprised “BminSW” mineral soils underlain with “karstified limestone bedrock at surface”. There are no geological features within the site. The top layer of rock has been removed which has had a localised permanent impact, and the topsoil has been used to create screening banks along the boundaries. There is potential for groundwater pollution from accidental spillages however most repairs and refuelling take place in the S part of the quarry in workshops and bunded areas. Existing mitigation measures include monitoring and restoration. There are two other small quarries within c.0.9km and 1.9km, with no cumulative impacts predicted.

**rEIA:** The removal of soil and overburden and the loss of rock are an inevitable and permanent consequent of quarrying. The re-use of topsoil to form on-site embankments and berms is a positive impact in terms of visual amenity and biodiversity. No sites of geological interest have been or will be affected. It is noted that only a small depth of rock has been removed from most of the SC area which has not had any adverse impacts on groundwater. On-site management of fuelling and equipment repairs currently seeks to prevent groundwater contamination and the on-going mitigation measures, which include adherence to best practices, will further minimise any adverse impacts soils and geology.

- No residual impacts anticipated.

## 8.2.4 Hydrology and hydrogeology

**rEIS:** Section 7 of the rEIS deals with the impact of the quarry and its ancillary activities on hydrology and hydrogeology within the quarry and the surrounding area.

The rEIS states that the site lies on a land bridge of limestone between Lough Mask and Lough Corrib, that the Cong Formation (CO) limestone bedrock within the quarry is virtually impermeable, and that site levels fall gently N to SE. The Cong Canal, which is a manmade feature to the E of the quarry, links Lough Mask to Lough Corrib, is also located within the Cong Formation. The limestone bedrock to the W is part of the Cong Canal Formation (NL) which curves around the quarry and extends N and S to the shores of Lough Mask and Lough Corrib. The rEIA states that this bedrock (NL) is more porous than the quarry bedrock (CO), that the boundary between the two types runs along a W to E axis along which there are many caves and springs, and that groundwater flows from Lough Mask to Lough Corrib are part of a very deep groundwater system that is c.30-40m below sea level.

The rEIS states that the site lies within the WFD catchment of “Mask-Trib of Corrib” River waterbody which has a Moderate water quality status, Lough Corrib and the Cong Canal have Good Status. Surface water discharges from the quarry via a settlement lagoon in the SE corner to the Cong Canal, the Cong River and Lough Corrib. There is an IFI fisheries hatchery to the SE of the quarry along the Cong River.

The rEIS states that the site is underlain by the “Corrib-Robe groundwater body which has an overall WFD status of Poor with an overall objective to “restore.” The poor status is related to one or more of the surface water bodies in the catchment having a high phosphate level as a result of farming activity and/or septic tanks however the phosphate levels in the Cong Canal are not the source.

The rEIS states that IFI and quarry ground water monitoring data indicate that suspended solids and nitrogen concentrations in water discharging from the quarry are usually below detection limits.

The rEIS describes the underlying aquifer as Rkc (Regionally important karstified aquifer dominated by conduit flow), there are no karst features in the SC area or the overall quarry site although there are several caves and springs located to the S of the site. There are no wells located within the quarry and there are no wells or public water abstraction areas with c.4km of the site. Surface water flows from N to SE and is discharged from the quarry via a settlement lagoon to the Cong Canal. There is no evidence of flooding on the surrounding area.

The rEIS states that the main works that took place in the SC area related to scrub clearance, soil removal and the separation of the top 0-2.5m of weathered limestone rock from the underlying upper bedrock to create a solid platform. It states that there has been no abstraction of solid limestone bedrock over most of the SC area although a 1.7ha area bedrock in the SC area has been excavated to a depth of 14m where the SC area interfaces with the original quarry. It states that the water table has not been breached, no water is pumped from the SC area, there is no ground water flow from the S face of the SC area although there are some seeps during heavy rainfall.

The rEIS undertook a hydrogeological and hydrological assessment of the entire quarry which analysed existing monitoring results from groundwater boreholes and cored holes. Monthly water level monitoring data was recorded and data loggers were installed to record groundwater levels across the entire site. Ground water borehole water levels, water inflows from exposed blast faces/quarry walls or from upper floor runoff zones, and flooding levels in the quarry floor were also recorded.

The assessment concluded that quarry activities had not adversely affected ground or surface water quality locally or in the wider catchment and that the much smaller SC area had not created any potential for impact. This conclusion was substantiated by the EPA and OPW water quality and hydrometric data for the waterbodies. There is no flood risk as the canal and river have substantial spare capacity to carry massive amounts of water. The existing mitigation measures include the settlement lagoon, management systems, discharge licences and monitoring. The rEIS concluded that in-combination effects are non-existent with no residual impacts predicted.

**rEIA:** The extraction of a small amount of limestone rock from the SC area to a modest depth has not resulted in any breaches of the water table or seepage of surface water or pollutants to groundwater, having regard to the dense and impermeable nature of the underlying bedrock. There are no ponds on the floor of the SC area. However, it was noted that there is small lagoon close to the interface of the main quarry and the SC area which does not appear to be fed by pumped water.

Quarry activities in the SC area have not given rise to any significant levels of surface water run-off from rainfall or water flowing into the quarry from higher ground. In any event, surface water from the SC area and the overall quarry flows or is pumped to the settlement lagoon in the SE corner of the quarry. It is then pumped to the Cong Canal (under a Discharge Licence) to the E of the quarry which ultimately drains into the Lough Corrib SAC via the Cong River. These watercourses are linked to the quarry over a relatively short distance. However, having regard to the dense and impermeable nature of the bedrock that underlies quarry site and the modest scale of the extraction that has taken place over most of the SC area, water quality in the canal, river and lake have not been adversely affected by past quarry works to any significant extent. The site is not located within a floodplain or a flood risk area and quarry activities have not given rise to any flooding concerns in the surrounding area.

The planning authority and HSE have no concerns provided the EMS is maintained and measures outlined in the rEIS are implemented.

- No residual impacts anticipated.

### **8.2.5 Climate and air quality**

**rEIS:** Sections 8 and 9 of the rEIS deals with the impact of the quarry and its ancillary activities on climate and air quality on the surrounding area. The rEIS states that activities in the SC area (vehicles and operational plant equipment) would have given rise to CO<sub>2</sub> and N<sub>2</sub>O emissions which are monitored as part of the ongoing Energy Management System. It states that there are several houses to the E and W of the quarry and that the nearest house is c.110m to the NE of the SC area, and that there are no ecologically sensitive areas nearby. Dust deposition monitoring of quarrying activities has been carried out at 6 locations around the site since 2007 and most results were below the guideline value of 350mg/sq.m./day. Existing on-going mitigation measures include routine wetting of hard standing areas and stockpiles, wheel wash facilities, speed limits and monitoring. The only other source of dust is from nearby roads and two small quarries that are c.0.9km and 1.9km away, with no cumulative impacts predicted.

**rEIA:** Quarry operations have given rise to the emission of dust particles as a result of extraction, processing, stockpiling and movement. The surrounding area is not densely populated and there are no ecologically sensitive areas in the immediate vicinity, and most of the site is screened by embankments, berms and wooded areas. The planning authority recommended that dust control measures be put in place to prevent pollution and to protect residential amenity and the adjoining road network. However, dust deposition in the surrounding area from past quarry operations has not been a noticeable problem and it has not given rise to any significant adverse impacts that could be retrospectively mitigated for.

The HSE noted that adequate dust monitoring is undertaken and there was no evidence of environmental dust on the day of the visit.

- No residual impacts anticipated.

### **8.2.6 Noise and vibration**

**rEIS:** Section 10 of the rEIS deals with the impact of noise and vibration from quarry activities on the surrounding area (including extraction, blasting, processing, transportation and berm construction). The results of on-going monitoring at six locations around the quarry indicate that operations within the SC area were within acceptable limits, and noise levels were below 55dB(A) at the nearest houses. The rEIS vibration monitoring data indicate that the standard operating parameters for blasting have been met. There is no record of noise complaints to the County Council. On-going existing mitigation measures include compliance with guidelines, optimal blast design, minimising drop heights, and regular maintenance of equipment, and monitoring. The only other source of noise in the surrounding area is from along nearby roads with no cumulative impacts predicted.

**rEIA:** The generation of noise and vibration is an inevitable consequence of quarrying and the levels generated will depend on the type of activity undertaken (including excavations, blasting, processing and haulage) as well as weather conditions. The surrounding area is not densely populated and most of the site is well screened by embankments and wooded areas. The planning authority did not raise any specific concerns in relation to noise although it did recommend that dust control measures be attached to prevent pollution and to protect residential amenity and the adjoining road network. The HSE noted that the noise and vibration levels were within accepted limits, it recommended that local residents be informed about blasting and that procedures form part of the Environmental Management System. However, the quarry has not been a noticeable problem in the past and

it has not given rise to any significant adverse impacts that could be retrospectively mitigated for.

- No residual impacts anticipated.

### 8.2.7 Roads and traffic

**rEIS:** Section 11 of the rEIS deals with the traffic impacts of the quarry and its ancillary activities on the surrounding area and road network and a Traffic Impact Assessment (TIA) was prepared. The analysis of the junction of the quarry entrance with the R345 during operational hours indicate that the existing junction operates well below the maximum desirable 0.85RFC and within capacity up to 2030, and that the maximum queue length is less than 1 vehicle under all scenarios. There is no record of any collisions along the R345 in the vicinity of the entrance between 2005 and 2012. The TIA recommended that the right hand visibility splay be assessed with regard to the proposed lowering of the speed limit to 60km/hr along the R345, that visibility be maintained accordingly and that existing signage is free for vegetation.

**rEIA:** Quarry operations have not given rise to significant traffic generation along the local and regional roads. Vehicular access to the quarry is off the R345 regional road, visibility at the junction is adequate in either direction, the R345 is not heavily trafficked, and it has sufficient capacity to carry previous and current quarry related traffic. The Planning Authority has raised concerns in relation possible negative impacts for traffic users entering and exiting the two county roads bounding the site to the E and W which may not have been fully examined in the rEIS. However, traffic generation in the surrounding area from past quarry operations has not been a noticeable problem and it has not given rise to any significant adverse impacts that could be retrospectively mitigated for. The HSE did not raise any concerns.

- No residual impacts anticipated.



### 8.2.8 Landscape, restoration and visual impact

**rEIS:** Section 12 of the rEIS deals with the visual impact of the quarry and its ancillary activities on the landscape of the surrounding area. A landscape assessment was undertaken which identified the main landscape types and a landscape and restoration plan is proposed. There are no protected views in the vicinity of the quarry although the R345 is a designated scenic route between Cong and Clonbur. It concludes that the SC area is not visible because of the presence of embankments and wooded areas around the site boundaries. Although the SC area can be seen from a small number of locations, including some nearby houses, the impact is not significant. The landscape and restoration plan recommends the use of more tree planting to further screen the quarry and reduce the visual impact.

**rEIA:** Quarry works have had an inevitable impact on the landscape. The quarry is located within a landscape that rises up gently from Lough Corrib to the S, the site boundaries are mainly defined by stone walls, embankments, fencing and wooded areas and views into the site are largely obscured by these features. The quarry is located along a section of the R345 which is a tourist and scenic route however there are limited views into the SC area because of the aforementioned boundary features and the separation distance with the S site boundary and the R345. No heritage features in the immediate vicinity have been affected. The SC area is visible from a number of houses located along the local road to the N of the quarry although the impact is not significant because of the separation distance. Any localised visual impacts would be addressed by the restoration plan, berms and additional tree planting and full details of which should be required by way of condition. It is noted that the planning authority and the HSE did not raise any concerns in relation to the landscape or visual impacts.

- No residual impacts anticipated.

### 8.2.9 Material assets and Cultural heritage

**rEIS:** Sections 13 and 14 of the rEIS deal with the impact of the quarry and its ancillary activities on material assets, archaeology and cultural heritage, within the quarry site and the surrounding area. There are no recorded monuments, sites of archaeological interest, protected structures or NIAH structures within the site. However there a number of heritage features in the surrounding area. These include three Neolithic Tombs, several early medieval ringforts and enclosures, and later medieval ruins (including Cong Abbey). There are three Protected Structures in the vicinity of the quarry including the Cong Canal to the E, and several non-designated NIAH structures which include farmhouses, houses, churches, a smithy, bridges and demesne walls, gates and railings. The rEIS states that there have been no significant negative impacts on material assets or archaeology and cultural heritage to date and none are predicted.

**rEIA:** Quarry operations have resulted in the inevitable removal of substantial amounts of rock from the site and the loss of some agricultural land. However, the works have not had any known adverse impacts on material assets, archaeology or cultural heritage in the area. However, it is possible that archaeological material could be discovered during the restoration phase and a planning condition should be attached to ensure the adequate management of these works to ensure the preservation of any artefacts. It is noted that the planning authority and the HSE did not raise any concerns in relation to material assets, archaeology or cultural heritage.

- No residual impacts anticipated.

### 8.2.10 Interactions and cumulative impacts

**rEIS:** Section 15 of the rEIS summarises the interactions and states that the relevant interactions and cumulative impacts have been identified in the various sections of the rEIS. It concludes that the main interactions are between human beings, water and the landscape. Two small quarries in the wider area and the fisheries at Cong are the only other projects in the vicinity, and no cumulative are impacts predicted.

**rEIA:** Quarrying can give rise to inevitable and unavoidable impacts on the environment and many of these impacts interact with each other. The main area of concern relates to the effects of the extraction and processing works on human beings, hydrology and hydrogeology and the interaction with soils and geology and surface water processes, ecology, and on the landscape. The proposed mitigation measures and suggested conditions related to the management of surface water, processing water and on-site drainage, and site restoration, should ensure that adverse impacts are not significant. There are no other developments in the surrounding area that could give rise to cumulative or in-combination impacts. It is noted that the planning authority and the HSE did not raise any concerns in relation to interactions or cumulative impacts.

- No residual impacts are anticipated.

## **8.3 Ecological impacts and Remedial Appropriate Assessment**

### **8.3.1 The Remedial Natura Impact Statement**

The application was accompanied by a Remedial Natura Impact Statement (rNIS). The main concerns related to ecology and the concerns raised by the NPWS and the planning authority are summarised in Sections 5.1 and 5.2, and addressed in sections 8.2.2 and 8.2.4 of this report. These sections should be read in conjunction with this assessment.

The rNIS described the SC site, the overall quarry, the surrounding area and the development for which substitute consent is sought. It used the extensive data which was collected as part of the rEIS desk and field surveys (including the Ecology, Bat Impact Assessment and Hydrology & Hydrogeology reports). The rNIS was amended slightly by the submission of post application seasonal survey data which did not alter its assessment and conclusions.

The rNIS confirmed that the development was not located within a European site. The Screening Assessment identified 13 European sites within a 15km radius of the quarry and screened out the sites which did not have the potential to be affected by the development. The rNIS identified the following 6 European sites where potential interactions are likely, and these sites are located within a c.4km radius of the works.

- Lough Carra/Mask SAC & SPA
- Lough Corrib SAC & SPA
- Ballymaglancy Cave SAC
- Kildun Souterrain SAC

The rNIS stated that there is no spatial overlap between the SC area and these European sites and that no direct impacts are predicted. It stated that these sites have the potential to be indirectly affected because of: - potential hydrological links with implications for water quality; disturbance to commuting

routes for otter; and disturbance to foraging habitat for bats; and noise disturbance to wintering and breeding birds.

The rNIS listed the conservation interests for the SPAs, the qualifying interests for the SACs, and the conservation objectives for each of the sites. The rNIS identified the potential sources of direct and indirect impacts (which include surface water discharge, noise, dust, vibration and waste) on these sites and assessed the impacts and the significance of the impacts.

The rNIS also assessed cumulative impacts in relation to past quarrying activities and the impacts of other activities in the surrounding area. The rNIS examined the ongoing mitigation measures (related to the management of noise, dust, waste and water) and proposed new mitigation measures (which relate to berms, planting and birds), and it identified residual impacts post mitigation. The final section dealt with restoration which mainly relates to the future flooding of the extraction area. The rNIS was accompanied by appendices which contained the Botanical Survey Data, Bird Survey Data, and Bat Impact Assessment Report.

The rNIS concluded that development in the SC area and the overall quarry was not likely to have had any significant adverse effects, on its own or in combination with other plans and projects, on the conservation of any European Sites in the area.

### **8.3.2 Appropriate Assessment**

The SC area is not located within an area covered by any European site designations and it is not relevant to the maintenance of any such site. However, the following European sites are located within a 15km radius of the SC area and overall quarry.

European site	Site	Code	Distance KM	Relevant features
Lough Carra/Mask	SAC	001774	c.1.4 - NW	Aquatic, otter & bats
Lough Carra/Mask	SPA	004062	c.2.4 - NW	Birds & wetlands
Lough Corrib	SAC	000297	c.1.9 - S	Aquatic, otter & bats
Lough Corrib	SPA	004042	c.2.0 - S	Birds & wetlands
Ballymaclancy Cave	SAC	000474	c.2.5 - SW	Bats
Kildun Souterrain	SAC	002320	c.3.8 - E	Bats
Clyard Kettle-holes	SAC	000480	c.6.5 - NE	Turloughs
Mocorha Lough	SAC	001536	c.8.2 - E	Fens
Cloughmoyne	SAC	000479	c.10.0 - SE	Limestone
Shrule Turlough	SAC	000525	c.10.4 - E	Turloughs
Skealaghan Turlough	SAC	000541	c.11.9 - NE	Turloughs
Ardkill Turlough	SAC	000461	c.14.4 - NE	Turloughs
Greaghans Turlough	SAC	000503	c.15.7 - NE	Turloughs

I am satisfied that all but 6 of these 13 sites can be screened out of any further assessment because of:- the main features of the European site; the absence of any aquatic connection between the European site and the SC area; the absence of suitable habitats within the SC area and the overall quarry for species that have been identified as qualifying interests or conservation interests for the European sites; and/or the separation distance between the SC area and the European site, which would be beyond the normal commuting range of relevant species.

**The relevant European sites are:**

Site name	Site	Code	Distance	Direction
Lough Carra/Mask	SAC	001774	c.1.4	NW
Lough Carra/Mask	SPA	004062	c.2.4	NW
Lough Corrib	SAC	000297	c.1.9	S
Lough Corrib	SPA	004042	c.2.0	S
Ballymaglancy Cave	SAC	000474	c.2.5	SW
Kildun Souterrain	SAC	002320	c.3.8	E

**The generic Conservation Interests for the two SPAs are:**

1. To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.
2. To maintain or restore the favourable conservation condition of the wetland habitat at Lough Mask and Lough Corrib SPAs as a resource for the regularly-occurring migratory waterbirds that utilise them.

<b>Site name</b>	<b>Code</b>	<b>Conservation interests</b>	<b>Attributes &amp; Targets</b>
<b>Lough Carra/Mask</b>	004062	Tufted Duck Black-headed Gull Common Gull Lesser Black-backed Gull Common Tern Greenland White-fronted Goose Wetland and Waterbirds	None specified
<b>Lough Corrib</b>	004042	Gadwall Shoveler Pochard Tufted Duck Common Scoter Hen Harrier Coot Golden Plover Black-headed Gull Common Gull Common Tern Arctic Tern Greenland White-fronted Goose Wetland and Waterbirds	None specified

**The generic Conservation Interests for the SACs is:**

1. To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

Site name	Code	Relevant Qualifying Interests	Attributes & Targets
<b>Lough Carra/Mask</b>	001774	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )  Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp  Lesser Horseshoe Bat  Otter	None specified
<b>Lough Corrib</b>	000297	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )  Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.  Floating Water Vegetation  Lesser Horseshoe Bat  Atlantic salmon  Slender Naiad  Otter	None specified
<b>Ballymaglancy Cave</b>	000474	Caves  Lesser Horseshoe Bat	None specified
<b>Kildun Souterrain</b>	002320	Lesser Horseshoe Bat	None specified

All but two of the Qualifying Interests for the Lough Carra/Mask SAC can be screened out of any further assessment because of the topography of the area, the nature and characteristics of the underlying limestone bedrock and the absence of any groundwater or surface water connection (directional flow) between this SAC and the SC area, as summarised in sections 8.2.3 and 8.2.4 above.



There is no direct physical connection between the SC area and the Ballymaglancy Cave SAC and “Caves” which is one of the Qualifying Interests for this site can be screened out of any further assessment.

**Favourable conservation status of a habitat is achieved when:**

- Its natural range, and area it covers within that range, are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable.

**The favourable conservation status of a species is achieved when:**

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

**The potential indirect impacts relate to:**

- Transport of pollutants in surface water flowing into the SAC/SPA via on-site discharges to the Cong Canal.
- Transport of pollutants in ground water flowing into the SAC/SPA.
- Ex-situ impacts on qualifying species outside the SAC/SPA but which is an integral and connected part of the population of

qualifying interest species such as otter and several species of bird and bat, as a result of noise, vibration, dust and waste.

## **Discussion:**

### **Lough Carra/Mask SPA and Lough Corrib SPA:**

The Lough Carra/Mask SPA is located c.2.4km to the NW of the SC area and overall quarry whilst the Lough Corrib SPA is located c.2.0km to the S. These sites have been designated for their importance to several species of bird (including wintering, migratory, wetland and waterbirds). The surrounding lands, which are located outside the SPA site boundaries also provide backup support for feeding and roosting birds and it is possible that birds commute over the SC area when flying between the two SPA sites.

The rEIS carried out extensive bird surveys which were used to inform the rNIS and the survey data is summarised and analysed in the section 8.2.2 above. Several bird species were recorded using or flying over the SC area and it is possible that species which are listed as Conservation Interests for the nearby European sites may have foraged in the SC area, overall quarry and adjacent lands. However, it is likely that noise and disturbance from on-going activities in the existing quarry, which has been operational for several decades, rendered the SC area relatively unsuitable for foraging birds on a regular basis. Although Peregrine Falcon and Ringed Plover have been recorded in the SC area, these species are not listed as Conservation Interests for the SACs. The existing and proposed mitigation measures, which relate to the control of dust, noise, vibration and blasting, and enhancement of biodiversity would serve to minimise on-going impacts.

Having regard to the foregoing, I am satisfied that there is sufficient scientific information before the Board to reach a conclusion that development in the SC area did not have a significant adverse effect on this European site and its Conservation Objectives, which seek to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation

Interests for the SPA, and the wetland habitat as a resource for the regularly-occurring migratory waterbirds that utilise them.

### **Lough Carra/Mask SAC:**

The Lough Carra/Mask SAC is located c.1.4km to the NW of the SC area and overall quarry boundary. The remaining relevant Qualifying Interests, which have not been screened out during this assessment, comprise Otter and Lesser Horseshoe Bat.

**Otter** is known to commute along the undeveloped Cong Canal to the E of the SC area. However, given that there are no watercourses within the SC area and overall quarry, it is unlikely that this species would have traversed the site prior to the development works for which substitute consent is sought.

**Lesser horseshoe bat** is known to occupy several other SACs in the surrounding area in addition to the Lough Carra/Mask SAC, and the potential effects of previous quarry works on this species will be assessed in the following sections.

Having regard to the foregoing, I am satisfied that there is sufficient scientific information before the Board to reach a conclusion that development in the SC area did not have a significant adverse effect on this European site and its Conservation Objectives, which seek to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (Otter).

### **Lough Corrib SAC:**

This SAC is located c.2.0 km to the S of the SC area which is connected this SAC via the on-site drainage arrangements. Surface water collected in the settlement lagoon in the SE corner of the overall quarry and discharges (under licence) to the Cong Canal to the E which drains into the Cong River to the SE which ultimately discharges to Lough Corrib to the S of the site. The remaining relevant Qualifying Interests, which have not been screened out

during this assessment, comprise Oligotrophic waters (containing very few minerals of sandy plains (*Littorelletalia uniflorae*)), Hard oligo-mesotrophic waters (with benthic vegetation of *Chara* spp.), Floating River Vegetation, Atlantic Salmon, Lesser Horseshoe Bat, Slender Naiad, and Otter.

**Oligotrophic waters, Hard oligo-mesotrophic waters & Floating River Vegetation** have been identified as a Qualifying Interest for all of Lough Corrib. The status of water bodies and water quality in the catchment of the SC area and overall quarry have been summarised and assessed in section 8.2.4 above, as has the quality of the water that is discharged from the quarry settlement lagoon to the Cong Canal. The main threat to water quality in the Lough Corrib SAC and the three aquatic Qualifying Interests relates to changes in water chemistry as a result of rising phosphorous and nitrogen levels in the watercourses that drain into the lake. Records indicates that the chemical composition of the discharged quarry water and the levels of suspended solids is well within accepted parameters. The concentration of nitrogen in quarry waters is low because of the nature of the works and the water management systems that are in place, and the rising levels of phosphate in the catchment are mainly related to farming practices and domestic septic tanks. It is therefore unlikely that development in the SC area had an adverse effect on the chemical composition of the NE section of Lough Corrib in the vicinity of the quarry, the aquatic Qualifying Interests, or the Conservation Objectives for this SAC which seek to maintain or restore the favourable conservation condition of Annex I habitats and Annex II species in the lake.

**Atlantic Salmon** has been recorded in the River Corrib and Lough Corrib and the IFI salmon hatchery is located downstream of the SC area and existing quarry at Cong Village. This species is susceptible to changes in water quality and smothering from suspended sediments. As previously stated, the rEIS, EPA and IFI water quality monitoring results indicate that the quality of water discharging from the quarry to the Cong Canal, and from the Cong Canal to the River Cong has been to a high standard. The existing environmental management practices and monitoring procedures have ensured that

development in the SC area has not had an adverse effect on this aquatic Qualifying Interest, or the Conservation Objectives for this SAC which seek to maintain or restore the favourable conservation condition of Annex I habitats and Annex II species in the lake.

**Slender Naiad** has been recorded in NW corner of Upper Corrib but not in the NE section of the lake which is located within c.2.0km of the overall quarry and SC area. According to the NPWS Article 17 Report Backing Document 2013 for “*Najas flexilis*, the Slender Naiad”, the N and NE sections of the lake do not contain suitable habitat for this species. Slender Naiad is vulnerable to changes in water chemistry, and in particular increases in the concentration of phosphorous and nitrogen. For the reasons outlined above, in relation to Oligotrophic and Hard oligo-mesotrophic waters, it is unlikely that development in the SC area had an adverse effect on this Qualifying Interest or the Conservation Objectives for the SAC, which seek to maintain or restore the favourable conservation condition of Annex II species.

**Otter** is known to commute along the undeveloped Cong Canal to the E of the SC area. However, given that there are no watercourses within the SC area and overall quarry, it is unlikely that this species would have traversed the site prior to the development for which substitute consent is sought.

**Lesser horseshoe bat** is known to occupy several other SACs in the surrounding area in addition to the Lough Corrib SAC, and the potential effects of previous quarry works on this species will be assessed in the following section.

Having regard to the foregoing, I am satisfied that there is sufficient scientific information before the Board to reach a conclusion that development in the SC area did not have a significant adverse effect on this European site and its Conservation Objectives, which seek to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (Oligotrophic waters, Hard oligo-mesotrophic waters, Floating River Vegetation, Atlantic Salmon, Slender Naiad and Otter).

## **Ballymaglancy Cave & Kildun Souterrain SACs, and Lough Mask/Carra & Lough Corrib SACs:**

Ballymaglancy Cave SAC is located c.2.5km to the SW of the SC area and quarry boundary, Kildun Souterrain SAC is located c.3.8km to the E, Lough Carra/Mask is located c.1.5km to the NW, and Lough Corrib SAC is located c.2.0km to the S. The remaining relevant Qualifying Interests, which have not been screened out during this assessment, comprise Lesser Horseshoe Bat.

The rEIS carried out extensive bat surveys which were used to inform the Bat Impact Assessment and rNIS which is assessed in the section 8.2.2 above. It is likely that Lesser Horseshoe Bat foraged within the SC area prior to development and commuted along the perimeter hedges and trees, as well as frequenting the adjacent lands. Quarry activities, which have been on-going for several decades in the existing quarry, and more recently in the SC area, had the potential to adversely affect bats the loss of foraging habitat, interference with commuting routes and general disturbance from the works.

The rEIS survey results indicate that bat populations in the nearby SACs have not been significantly affected by disturbance from quarry activities and that there is substantial foraging habitat in the surrounding area. Although there has been a loss of foraging habitat, the SC area and overall quarry continue to provide commuting routes along the perimeter embankments and wooded areas. The existing and proposed mitigation measures, which relate to the control of dust, noise, vibration and blasting, and the enhancement of biodiversity by way of berms and tree planting would serve to minimise impacts and to provide more opportunities for commuting and foraging bats.

Having regard to the foregoing, I am satisfied that there is sufficient scientific information before the Board to reach a conclusion that development in the SC area did not have a significant adverse effect on these European sites and their Conservation Objectives, which seek to maintain or restore the

favourable conservation condition of the Annex I habitats and Annex II species for which these SACs have been selected (Lesser Horseshoe Bat).

### **Conclusions:**

I concur with the conclusions reached in the rNIS that development in the SC area did not have a significant adverse effects on any European Sites.

### **Appropriate Assessment conclusion:**

On the basis of the information provided with the application and appeal, including the Remedial Natura Impact Statement, and in light of the assessment carried out above, I am satisfied that development in the Substitute Consent area, individually, or in combination with other plans or projects would not have adversely affected the integrity of the following European Sites in view of the site's Conservation Objectives:

<b>Site name</b>	<b>Site</b>	<b>Code</b>
Lough Carra/Mask	SAC	001774
Lough Carra/Mask	SPA	004062
Lough Corrib	SAC	000297
Lough Corrib	SPA	004042
Ballymaglancy Cave	SAC	000474
Kildun Souterrain	SAC	002320

## **8.4 Conditions**

8.4.1 The Planning Authority recommended that this application for substitute consent should be approved subject to a number of conditions related to time constraints for works and restoration, total annual output, extraction depth, hours of operation, details of blasting, noise and dust limitations, wheel wash facilities, bunding of over ground storage tanks, drainage management plans, landscaping, and bonds and financial contributions. The details are summarised in section 5.1 above.

8.4.2 The application for substitute consent only relates to works that have already been undertaken and not to any future works which would require planning permission. Conditions can only relate to past works that may have had an adverse impact on the environment that still require mitigation or remediation, where this is still possible.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

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

## REASONS AND CONSIDERATIONS

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

- The provisions of the Planning and Development Acts, 2000 to 2014 and in particular Part XA,
- The Government's guidelines and supplementary guidelines on Section 261A of the Planning and Development Act 2000 and related provisions,



- The provisions of the Mayo County Development Plan, 2014 to 2020,
- The provisions of the Galway County Development Plan, 2015 to 2021,
- The remedial Environmental Impact Statement and remedial Natura Impact Statement submitted with the application for substitute consent, and supporting documentation,
- The nature and scale of the development the subject of this application for substitute consent, and
- The mitigation measures which are in place and the further remedial measures proposed,
- The report and opinion of the planning authority under section 177I,
- The submissions on file,
- The pattern of development in the area,

### **Remedial Appropriate Assessment**

The Board noted that the development was not directly connected with or necessary to the management of a European Site. Having regard to the nature, scale and extent of the subject development, the remedial Natura Impact Statement submitted with the application and the mitigation measures contained therein, the submissions on file and the Inspector's assessment, the Board completed a remedial Appropriate Assessment of the effects of the development on nearby

Natura 2000 sites. The Board concluded that, on the basis of the information available, the subject development, either individually or in combination with other plans or projects, would not have adversely affected the integrity of European Site Nos. 001774, 004062, 000297, 004042, 000474 and 002320, or any other European site, in view of the site's Conservation Objectives.

### **Remedial Environmental Impact Assessment**

The Board considered that the remedial Environmental Impact Statement submitted with the application, the report, assessment and conclusions of the Inspector with regard to this file and other submissions on file, was adequate in identifying and describing the direct and indirect effects of the development. The Board completed a remedial environmental impact assessment, and agreed with the Inspector in her assessment of the likely significant effects of the development, and agreed with her conclusions on the acceptability of the mitigation measures proposed and residual effects. The Board adopted the report of the Inspector. The Board concluded that, subject to the implementation of the mitigation measures proposed, the development would not have been likely to have had adverse impacts on the environment and subject to the following conditions, the effect of the development on the environment would be acceptable and would be in accordance with 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 04<sup>th</sup> day of June 2015 and the further information that was received by the Board on 14<sup>th</sup> day of February 2017, and relates only to works undertaken prior to the decision of Mayo County Council to serve notice on 17<sup>th</sup> 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. 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 scheme shall incorporate tree planting to screen the quarry from key vantage points along the local road network.

(c) Details of site safety measures shall be provided.

(d) 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 water quality.

3. 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. 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.

5. 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.

6. Within three months of the date of this order, the developer shall pay to the planning authority a special financial contribution in respect of road improvement works to the R345 in the vicinity of the quarry in accordance with the terms of the Development Contribution Scheme made under section 48 (2) (c) 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.

7. 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.

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Karla Mc Bride  
Senior Planning Inspector  
10th April 2017