



An
Bord
Pleanála

Inspector's Report ABP-311265-21

Development	(1) 25 year permission to extract & blast rock (2) relocation of stone crushing & screening plant (3) all other associated site works. An Environmental Impact Assessment (EIAR) & Natura Impact Statement (NIS) accompany the application.
Location	Carrownamaddy, Dunfanaghy, Co Donegal
Planning Authority	Donegal County Council
Planning Authority Reg. Ref.	2150256
Applicant(s)	McFadden & McGinley Ltd.
Type of Application	Permission
Planning Authority Decision	To grant with conditions
Type of Appeal	First Party
Appellant(s)	Marian McDaid.
Observer(s)	None.
Date of Site Inspection	21 st March 2022.
Inspector	Deirdre MacGabhann

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1.0 Introduction

1.1. This report is an addendum report following the Board's decision on the 10th January 2023 to request further consideration of the EIA and AA issues as they pertain to the appeal.

2.0 Site Location and Description

2.1. The 14.67ha appeal site is situated c.3km to the north east of Muckish Mountain and c.3km north west of Creeslough, in the townland of Carrownamaddy, County Donegal. The site lies on the northern side of a county road, L-1284-2, which joins the N56, a national secondary road, approximately 3km to the north east of the quarry. Access to the site is from the county road via three entrances. Internal access roads are linked internally.

2.2. The appeal site can be divided into two areas, the western part of the site, comprising the existing rock processing and manufacturing area and, to the east of this, an area of unworked land comprising dry heath, wet heath, wet grassland and scrub (see Site Layout Plan, drawing no. 9). Within the processing and manufacturing area there are:

- Site offices, with staff facilities and weighbridge, adjoining the public road.
- Machinery workshop.
- Dry batch ready mixed concrete plant, with associated holding bins, hoppers and silos (west of area).
- Wet batch ready mixed concrete plant, with associated bins, hoppers and silos (central to area).
- Concrete block yard (north of offices).
- Static stone crusher/washing unit (southwest of area).
- Stockpiles of processed materials.
- Four linked settlement ponds.

2.3. To the north of the processing area, an internal access road runs alongside the northern boundary of the site and provides access to an extraction area to the immediate north east of the site. It is stated in the planning application documents that extraction has ceased from this area.

2.4. Carrownamaddy River runs along the northern boundary of the site in an easterly direction. To the south of the site, along the public road are a small number of one off houses. Other dwellings/farms lie alongside the public road to the north of the Carrownamaddy River.

3.0 Proposed Development

3.1. The proposed development, as revised by way of significant further information (submitted on the 17th June 2021) comprises:

- 25 year permission to extract and blast rock, with a new 3.0ha extraction area to the east of the existing quarry yard and settlement ponds.
- Overburden will be removed from the extraction area and placed in berms of 2.5m-3.0m in height around the perimeter of the extraction area.
- Two additional settlement ponds will be constructed within the extraction area for surface water runoff from within the area.
- Rock will be extracted to a depth of 53m on a phased basis, by a combination of excavator and periodic blasting (c.5 x year) to fragment the parent material into manageable sizes from the quarry face.
- Rock will be processed by a primary mobile crusher sited close to the active face and by the static crushing and screening plant.
- The static crushing and screening plant will be relocated from its current position (to the southwest of the processing area) to a location nearer to the proposed extraction area, to the south of settlement pond no. 3. A new haul road will be constructed from the newly locating crusher plant to the proposed extraction area.
- Crushed material will be screened into various sized aggregate, washed if necessary and stockpiled. Aggregate will be sold directly from stockpiles or used in dry and wet batch concrete products.
- Extraction will progress from the northwest corner of the extraction area in an easterly direction. Yield is expected to be c.33,000m³ per annum (c.75,000 tonnes). It is stated in section 3.4.1 of the EIAR that excavation will take place over two benches to a finished depth of 53mOD, with no impact on the water table. [NB. Site sections indicate that rock will be removed in a single bench[.
- All other associated site works.

- 3.2. Water supply to the main office, canteen and staff facilities will be from an existing supply from the public mains. Wastewater will be disposed of in a holding tank on site, as per a condition of ABP-SU05E.SU0030, and removed periodically.
- 3.3. Water for processing and manufacturing is taken from the settlement ponds, with occasional topping up from Carrownamaddy River. Discharges to Carrownamaddy River are made in periods of sustained weather. Run off from the new extraction area will be directed into the same settlement pond system. Water for dust suppression is supplied by pump from the settlement pond system in the manufacturing area.
- 3.4. The planning application includes:
- Environmental Impact Assessment Report.
 - Appropriate Assessment Screening Report.
 - Natura Impact Statement (NIS).
 - Addendum to NIS.
 - Quarry Landscape and Restoration Plan.
 - Report on Archaeological Assessment.

4.0 Planning Authority Decision

4.1. Decision

- 4.1.1. On the 6th August 2021, the planning authority decided to grant permission for the development subject to 19 conditions, including:
- C1 – Limits permission to 25 years. Development to be carried out as per plans and details lodged including EIAR and NIS and Addendum NIS.
 - C2 – Defines extraction area, requires implementation of perimeter berms and submission of landscaping and restoration plan.
 - C3 – Requires implementation of all environmental, construction and ecological mitigation measures.
 - C4 – Requires discharge of trade effluent to waters to be in accordance with requirements for a discharge licence under Water Pollution Act.
 - C5 – Sets out hours of operation.
 - C6 – Precludes blasting April to June (inclusive).

- C7 and C8 – Set out requirements for blasting operations.
- C9 and C10 – Govern noise and dust respectively.
- C11 – Requires stock proof fencing.
- C12 – Requires archaeological monitoring of site works.
- C13 – Requires provision and use of wheel wash.
- C14 – Requires appropriate storage of pollutants.
- C18 – Requires payment of a bond or security.
- C19 – Requires payment of a development contribution.

4.2. Planning Authority Reports

4.2.1. Planning Reports

- 6th April 2021 – The report refers to internal reports made, including those by Lab (no objections) and Conservation Officer (observations on PA ref. 20/51287), submissions by prescribed bodies and third parties (see below), the planning history of the site and planning policy context for the development. The report considers the principle of the development to be acceptable given the established nature of the activity on the site and local and national planning policies which support extractive industries. The report refers to enforcement action in respect of compliance with conditions attached to the substitute consent to cease quarrying operations. Further, it states that as extraction works have ceased the PA consider that it is acceptable in principle for the proposed works to be carried out at an alternative location on the landholding. The report carries out an environmental impact assessment of the development, having regard to the EIAR submitted, and considers that the development would not detract from the visual amenity of the area and that arrangements for access are acceptable. The report recommends further information in respect of effect of the development on Merlin, as per the submission by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM) and location of settlement ponds in new extraction area. Appropriate assessment to be carried out subsequent to the submission of further information.
- 28th July 2021 – The report refers to the further information submitted. It recommends conditions precluding blasting during April to June (inclusive) but

states that the PA is satisfied that the results presented in the NIS Addendum demonstrate that subject to mitigation measures the development will not result in any significant loss of habitat associated with Derryveagh and Glendowan Mountains SPA. Further, it states that any discussion in respect of securing and managing lands for habitat are between the applicant and NPWS, outside of the application process.

- 28th July 2021 – The planning authority’s Appropriate Assessment refers to European sites that may be affected by the development (site synopsis and conservation objectives), Muckish Mountain SAC, Derryveagh and Glendowan Mountains SPA and Sheephaven Bay SAC. It determines that, having regard to the detailed mitigation measures and recommendations set out in the NIS and Addendum to NIS, the development will not have a significant effect on European sites.

4.2.2. Other Technical Reports

- Fire Officer (5th March 2021) – No objection.
- Building Control (10th March 2021) – All works to comply with Building Regulations where applicable.

4.3. Prescribed Bodies

- An Taisce (22nd March 2021) – Application submitted in parallel to PA ref. 21/50257 and subject development should be assessed in conjunction with the application. A range of invalid or incomplete applications have been lodged between 2016 and 2020 and operations have continued on site. Application requires preliminary legal assessment as it raises significant EU level and national EIA and planning compliance issues, which render the application invalid due to large scale unauthorised development. In 2020 An Taisce obtained a supreme court judgement nullifying the then applicable Substitute Consent regime on the basis of failure to address consideration of exceptionality (An Taisce v An Bord Pleanála High Court 201/342 JR and Supreme Court 9/19). Site is in an ecological and landscape sensitive area. Operational history referred to by applicant indicates absence of planning permission for developments carried out and lack of compliance with condition

no. 1 of application for substitute consent (ABP05E.SU0030). Application does not address or resolve the nature or extent of development on the site since the 2014 Board Pleanála substitute consent decision. The NIS cannot separate the subject application from PA ref. 21/50257. Granting of 25 year permission is inappropriate in principle.

- Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM) (6th April 2021) – Recommends pre-development archaeological impact assessment. Considers that risks to Merlin populations, that support the Derryveagh and Glendowan Mountains SPA, are inadequately assessed. Subsequent report (26th July 2021) recommends that blasting activities are undertaken outside of the main sensitive bird breeding season, to prevent disturbance to nesting Merlin and Red Throated Diver, and that compensatory foraging habitat is provided for Merlin.

4.4. **Third Party Observations**

4.4.1. There is one third party observation on file by Marian McDaid, the appellant. The following issues are raised:

- Impact of blasts on integrity of residential property.
- Health effects of chemicals used in blasting (releases to atmosphere).
- Notice of application in a national newspaper and no site notice.

5.0 **Planning History**

- PA ref. 04/3277 – Permission granted for office with septic tank.
- PA ref. EUQY82/ABP05E.SU0030 – In accordance with section K of the Planning and Development Act 2000 (as amended), the Board granted substitute consent for a quarry at Carrownamaddy. The consent referred to an overall site area of 21ha, comprising the existing manufacturing and processing area and quarry extraction area to the east of the site (to the north of the proposed extraction area). Condition no. 1(b) stated that the consent relates only to the quarry that has been developed as described in the application and does not authorise any structures or any future quarrying on

the site, nor did it pertain to the batching plants or associated works or any manufacturing (i.e. it governed the past operation of the quarry).

- PA ref. 16/51814 – Invalid application (for continuation of quarrying, manufacturing and processing, new garage/workshop, relocation of stone crushing and screening plant and associated works).
- PA ref. 17/50038 – Invalid application (for continuation of quarrying, manufacturing and processing, new garage/workshop, relocation of stone crushing and screening plant and associated works).
- PA ref. 20/51287 – Invalid application (for retention of quarry yard to include all related manufacturing and processing works with ancillary facilities, 25 year permission to extract and blast rock, relocation of stone crushing and screening plant and associated works).
- PA ref. 21/50257 – Permission for retention and continuation of use of manufacturing and processing plant, existing domestic wastewater holding tank and settlement ponds at Carrownamaddy was granted by the planning authority 13th September 2021. The 10.4ha application site¹ refers to the existing operations at the subject site (i.e. it excludes any extraction area). The planning application was made concurrently with the subject planning application PA ref. 21/20256, which is the subject of this appeal.

6.0 Policy Context

6.1. National Policies

- National Planning Framework 2018 – National policy objective 23 seeks to facilitate the development of the rural economy through supporting sustainable and economically efficient sectors, including extractive industries, provided they maintain and protect the natural environment.

6.2. Development Plan

- 6.2.1. The appeal site lies in the administrative area of Donegal County Development Plan 2018 to 2024. The site lies in an area of Moderate Scenic Amenity. These are

¹ This was incorrectly stated to be 4.0ha in the original Inspector's report (typographical error).

areas outside of the Local Area Plan boundaries and Settlement framework boundaries that have a unique, rural and generally agricultural quality. It is stated that these areas have the capacity to absorb additional development that is suitably located, sited and designed subject to compliance with all other objectives and policies of the Plan (Policy NH-P-7).

6.2.2. Policies in respect of extractive industries are set out in section 8.1. Overall the aim of the Plan is to facilitate appropriate and sustainable extraction of locally sourced aggregates and/or minerals that contribute to the local economy subject to environmental safeguards. This overall aim is reflected in policies EX-P-1 to EX-P-6 of the Plan.

6.2.3. The appeal site lies in proximity to various national and European sites of natural heritage interest (see below). Policy NH-P-1 affords protection to these sites from development proposals.

6.3. Natural Heritage Designations

6.3.1. The appeal site lies c.450m north of Muckish Mountain Special Area of Conservation (site code 001179). Much of the area designated as SAC overlaps with the Muckish Mountain proposed Natural Heritage Area (Muckish Mountain pNHA, site code 001179). Derryveagh and Glendowan Mountains SPA (site code 004039), also lies to the south of the site. This larger European site is >7km from the appeal site, with the exception of three small pockets lying south and south west of the site. Other sites lie in the wider area, including Sheephaven Bay SAC (site code 001190) into which Carrownamaddy River flows, c.3km to the north east of the appeal site. Much of the designated SAC also overlaps with the Sheephaven pNHA (site code 001190) (see attachments).

6.4. EIA Screening

6.4.1. The following thresholds are relevant to screening the subject development for EIA:

- Class 19, Part 1 of Schedule 5 of the Planning and Development Act, 2001 (as amended), requires EIA of quarries in excess of 25ha.

- Class 2, Part 2 of Schedule 5, requires EIA of developments comprising the extraction of stone or sand, where the area of extraction would be greater than 5ha.
- Class 13(b), Part 2 of Schedule 5 requires EIA of changes and extensions to development which comprise an increase in size greater than 50% of the appropriate threshold.

6.4.2. The proposed development refers to a site of 14.67ha, with an extraction area of 3ha. However, the development is an extension of an existing quarry where the extension is >50% of the appropriate threshold of 5ha. The proposed development triggers the requirement for EIA.

7.0 The Appeal

7.1. Grounds of Appeal

7.1.1. Grounds of appeal are:

- ABP has three legal tasks when dealing with the application, under the Planning Acts, EIA Directive and Habitats Directive.
 - Planning Acts – ABP must examine the application to determine if it complies with the Planning Regulations, in particular articles 22 and 23 (Judgement of Humphries J Sweetman v ABP 2020 No. 557 JR).
 - EIA Directive – ABP is required to form and record a view as to the environmental impacts of the development, considering the EIAR, views of the public, its own expertise or if no EIAR, to screen the development for EIA.
 - Habitats Directive – ABP is responsible for screening the development under article 6.3 and making a decision, also under 6.3. If a significant effect is possible, appropriate assessment is required. On the basis of the lack of information submitted, it is not possible for the Board to make a decision to grant permission which would comply with Article 6.3 (assessment must have no lacunae and conclusions capable of removing all reasonable scientific doubt).

- The application does not comply with the requirements of the P&D Regulations.
- The EIAR is not compliant with the EIA Directive.
- The planning authority failed to carry out a proper EIA.
- The planning authority failed to carry out a proper Appropriate Assessment.
- The decision by the planning authority is contrary to the Planning and Development Act, Directives of the EU and findings of the CJEU.
- It is not possible for the Board having carried out its functions *de novo* to grant permission for the development.
- The development and the retention application are the same.

7.2. Applicant Response

7.2.1. The applicant makes the following response to the appeal:

- The existing site has in place an existing quarry register no. QY82/ABP05.SU0030 granted 25th February 2015.
- Application complies with articles 22 and 23 of the Planning and Development Regulations (including EIA portal).
- Appellant fails to indicate how the EIAR is defective. EIAR is compliant with article 4(4) of the EIA Directive. Appellant states that if there is no EIAR then the Board must screen the development for EIA. This indicates that the appellant has not reviewed the planning application in detail.
- NIS and Addendum NIS submitted. Development is consistent with article 6(3) of the Habitats Directive. Addendum NIS focuses on Merlin bird studies with methodology agreed with NPWS. PA and Department are satisfied development will not adversely affect the integrity of a European site. PA have carried out a AA determination.
- No information is submitted by the appellant to undermine the conclusions of the Planning Officer's report which deemed the proposal to be acceptable.

7.3. Planning Authority Response

7.3.1. The planning authority make the following comments:

- Context.

- One third party submission by Ms McDaid was received on the planning application, raising issues in respect of blasting (damage to house and risks to health). Under section 261 the quarry was deemed a pre-64 quarry requiring substitute consent. Under ABP 05E.SU0030, substitute consent was granted by the Board subject to 6 no. conditions. The Board noted that the notice issued by the PA referred only to appropriate assessment. The scope of the substitute consent was confined to past quarrying. Any future development on the site was outside of the substitute consent process. The Board's decision pre-dated amendments to the Planning and Development Act, under section 37L, which allowed for the continuation of quarry use as part of the substitute consent process.
- Two applications have been lodged by the quarry operator, PA ref. 21/50257 for retention permission for activities associated with the processing area and PA ref. 21/50256 for the subject development.
- Ms McDaid was granted planning permission for her dwelling in 2001 (PA ref. 01/2206) with full awareness of the quarry operation within 400m of the dwelling.
- Planning permission was granted by the planning authority under PA ref. 21/50256 to regularise the area of the quarry that had already been granted substitute consent by the Board and to allow for this area of the quarry to continue operation. The storm water collection and discharge to ground measures proposed in the subject application are those approved under the substitute consent application. The PA was satisfied that the mitigation measures set out in the substitute consent application were more than adequate to protect against risk to water quality and the discharge did not pose any risk to the qualifying interests of the Muckish Mountain SAC, Derryveagh and Glendowan Mountains SAC or Sheephaven SAC.
- Compliance with planning regulations. It is unclear what part of the planning regulations the appellant refers. The PA consider the development compliant with all Articles of Part 4 – Control of Development (and therefore constituted a valid planning application), Part 10 – Environmental Impact Assessment,

and part 20 – Appropriate Assessment, of the Planning and Development Regulations 2001 (as amended).

- Compliance with EIA Directive. It is unclear which part of the EIAR the appellant is referring to. The PA is satisfied that the EIAR is consistent with the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) by the transposing of the EIA Directive into Irish law in 2018.
- Carrying out of EIA. PA carried out an EIA as prescribed for under Part 10 of the Planning and Development Act 2000 (as amended) and Part 10 of the Planning and Development Regulations 2001 (as amended).
- Carrying out of AA. The PA carried out an AA as prescribed for under Part 20 of the Planning and Development Act 2000 (as amended) and Part 20 (*sic*) of the Planning and Development Regulations (as amended).
- P&D Act 2000 (as amended), EU Directives and findings of CJEU. PA disagree with assertion. The appellant has not specified which CJEU he is referring to. PA is satisfied that its assessment is fully compliant.
- Determination by ABP. PA relies on the board to carry out its functions regarding the appeal. The quarry has been previously assessed by the Board under substitute consent application. At that time there was no legal mechanism provided under legislation for the continuation of quarrying. The P&D Act 2000 (as amended) was amended by legal provisions of section 37L which allows for continuation of quarrying.
- PA is satisfied that the principle for quarrying has been established at the location, proposal complies with National Policy Objective 23 and policies EX-P-1 to EX-P-6 of the CDP 2018-2024, as varied and proposal for extraction period for 25 years is acceptable in principle, subject to compliance with all other relevant development management criteria and monitoring.

7.4. Observations/Further observations

- None.

8.0 Assessment

8.1. Having inspected the appeal site, examined the application details and all other documentation on file and having regard to relevant national guidance and local planning policies, I consider that the main issues in this appeal can be confined to the matters raised by parties:

- Compliance with the planning regulations/act,
- Compliance with the EIA Directive/adequacy of environmental impact assessment, and
- Adequacy of appropriate assessment.

8.2. I note that the issues raised in observations have been addressed by the planning authority and have not been brought through to appeal. However, I address issues of noise, vibration and air pollution in my assessment.

8.3. Planning Assessment

Compliance with the Planning Acts and the Regulations

8.3.1. Under the Planning Acts the appellant states that the Board must examine the application (a) to ascertain if the contents comply with the Planning Regulations, in particular Articles 22 and 23 of the 2001 Regulations as per Judgement of *Humphries J Sweetman v An Bord Pleanála* 2020, No. 557 JR, and (b) it must assess the merits of the application in accordance with the Planning and Development Act 2000 (as amended) to ensure the proposed development is in accordance with the proper planning and sustainable development of the area. No specific matters are raised regarding inadequacies of the subject application/proposed development with either the Regulations or the Act.

8.3.2. Section 22 and 23 of the Planning and Development Regulations, 2001 (as amended) respectively deal with the content of planning applications generally and particulars to accompany an application under article 22. In *Sweetman v An bord Pleanála*, the Judgement considered the Planning and Development Regulations, 2001 (as amended) and the requirement in law for an appropriate description of the development in terms of plans and particulars.

- 8.3.3. The observer to the application also raised concerns regarding the erection of a site notice and placement of the newspaper notice in a national newspaper. Both matters were addressed by the PA in the first Planning Report. Further, having regard to the submissions on the planning application and appeal, I am satisfied that the issues raised did not prevent the concerned party from making representations and this assessment represents my *de novo* consideration of all planning issues material to the proposed development.
- 8.3.4. In the course of the planning application, An Taisce raised concerns regarding the legal matters stating that 'The subject application requires preliminary legal assessment as it raises significant EU level and national Environmental Impact Assessment and planning compliance issues'. These arguments are not detailed, but the submission states that the application is invalid due to unauthorised development on the site and that the NIS cannot separate the subject application from PA ref. 21/50257 (application for retention). The appellant also argues that the development and the retention application are the same.
- 8.3.5. The subject development was proposed alongside an application for retention permission, under PA ref. 21/50257, for the continuation of use of plant and equipment on the appeal site and settlement pond system (no extraction area). The two planning applications relate to the same overall site but one provides for processing and the other for extraction. I would not accept that the two applications are the same but I would accept that they are conjoined and dependent on each other. Notwithstanding this, subject to the assessment of in-combination effects, such division of itself is not inappropriate.
- 8.3.6. Matters of enforcement are the responsibility of the planning authority and in this instance permission has been granted under PA ref. 21/50257 for the retention and continuation of use of existing plant, equipment and settlement pond system. Under section 34(12) of the Planning and Development Act 2000 (as amended), retention permission cannot be sought if a development that was carried out requires EIA, a determination in respect of EIA or appropriate assessment. I would consider, therefore, that there may be issues with the retention permission granted by the planning authority. However, this matter is outside the scope of this appeal. Further, in the absence of the permission for retention being appealed or challenged, I consider that it is incumbent on the Board to determine the appeal in respect of the

proposed development and the matters raised. In this regard case law, enables the board to determine appeals which may include development which is alleged to be unauthorised '4.5 *In the light of the above, the Court is satisfied that An Bord Pleanála is not prohibited from granting planning permission in circumstances where the development in respect of which planning permission is sought incorporates an extant development which it is alleged amounts to an unauthorised use and/or development*' (Murphy v ABP, GL0322).

Principle of Development

- 8.3.7. National planning guidelines support the development of the extractive industry, subject to environmental safeguards. Similarly, policies of Donegal County Development Plan 2018-2024, recognise the importance of extractive industries and require development proposals to comply with the government's guidelines on quarries and ancillary activities and the EPA guidelines on environmental management in the industry (EX-P-1). Other policies of the Plan for the sector preclude development which would have an adverse impact on sensitive sites, water quality and in areas of Especially High Scenic Areas and High Scenic Amenity. Particular care is also required in Freshwater Pearl Mussel Catchments.
- 8.3.8. The appeal site lies in a rural of area Moderate Scenic Amenity and outside of any Freshwater Pearl Mussel Catchment. In principle it is consistent with national and local planning policies which support the extractive industry subject to environmental safeguards. Effects on the environment are considered below.

Timescale

- 8.3.9. If the board are minded to grant permission, I recommend a duration of 20 years, as per the government's guidelines on Quarries and Ancillary Activities (see attachments).

Conclusion

- 8.3.10. Having regard to the foregoing and the conclusions in respect of EIA and AA set out in this report, I am satisfied that the proposed development complies with the requirements of the Planning and Development Regulations 2001 (as amended) and the Planning and Development Act 2000 (as amended).

8.4. Environmental Impact Assessment

- 8.4.1. I have carried out an examination of the information presented by the applicant, including the EIAR, and the submissions made during the course of the planning application and appeal. The issue raised by the appellant's in respect of EIA is that the EIAR is not compliant with the EIA Directive and that the PA failed to carry out proper EIA. The appellant does not set out reasons for these issues.
- 8.4.2. Having regard to my assessment below, I am satisfied that the information contained in the EIAR and supplementary information provided by the developer, adequately identifies and describes the direct, indirect and cumulative effects of the proposed development on the environment and complies with article 94 of the Planning and Development Regulations 2000, as amended. Further, I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality. Qualifications of experts are set out in individual chapters of the EIAR. It is stated in the EIAR, section 1.7, that no difficulties were encountered in compiling the report and this is consistent with the technical chapters of the report.

Alternatives and Do-Nothing

- 8.4.3. Chapter 2 of the EIAR deals with alternatives (section 2.4). It considers alternative locations and layouts for the proposed extraction area (Map 2.1) with alternative options within the landholding (options A, B and C) and outside the landholding (option D). Option E is do nothing (processing the remaining resource on site, with no further extraction activity).
- 8.4.4. Option B is brought forward as the preferred option, given its proximity to the proposed settlement pond, screening of extraction area (visual and noise) due to its elevation relative to the public road and least impact on intact habitat.
- 8.4.5. Traditionally material has been extracted by blasting. Extraction by hydraulic impact breaker is considered but discounted on the grounds that it takes longer and can result in elevated noise levels. Extracted material will be moved by dumper truck over the alternative of conveyor belt, which is discounted on the basis that the extraction area is substantially removed from the processing area (c.300m). The EIAR also gives consideration to reorganising primary and secondary crushing to minimise movement of material, effects on water quality and noise, with movement

of the static crushing/washing plant (currently located in the south western corner of the processing area) to a more central location (Figure 8.3).

- 8.4.6. The rationale for the development is to enable the long established quarry to continue its operation for a period of 25 years. There will be no increase in output per annum or traffic associated with the development.

Assessment

- 8.4.7. The Planning and Development Regulations, 2001, as amended, requires the EIAR to provide a description of the reasonable alternatives studied which are relevant to the proposed development and its specific characteristics and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.
- 8.4.8. Having regard to these requirements, the specific nature of the development which comprises on-going development of a long established quarry, the characteristics of the site, the likely effects of alternative extraction areas and alternative processes, I consider that the alternatives considered by the applicant are reasonable and sufficient in terms of detail and have been appropriately considered taking account of the effects of the proposed development on the environment.

Risk of major accidents and disasters

- 8.4.9. The appeal site is not located in an environment that is subject to risk of natural disaster e.g. earthquake. The vulnerability of the project to risks of major accidents is considered here under specific environmental topics. The main risks arise from climate change (flooding), accidental spillages or discharges of polluted water.

Population and Human Health

- 8.4.10. Chapter 5 of the EIAR deals with impacts on population and human health, in the context of relevant environmental topics addressed in the EIAR, as per EPA guidelines. No difficulties were encountered in the assessment of impacts.

Baseline

- 8.4.11. The EIAR refers to the location of the appeal site in a rural area with a dispersed and low population. It lies 3km north west of the village of Creeslough, with residential development along the county roads to the north and south of the quarry (Figure 5.1). The quarry has traditionally employed 12 full time workers and 2 seasonal

workers, as well as supporting indirect employment. The area around the quarry is used for cycling and walking, including to the summit of Muckish Mountain and along the Muckish Railway Walk.

Impact Assessment

8.4.12. Population. The EIAR has regard to Census data, including Small Area Population Statistics. It states that the population in the local area rose by 4.1% between 2011 and 2016 and that 59.8% of houses in the area have been built since 1981, during the operational period of the quarry. The development will maintain direct and indirect jobs in the rural area and contribute to socio-economic activity (source of raw materials for local construction industry). No impacts are predicted in respect of land use, tourism, recreation and amenity, social infrastructure, site safety or traffic given the modest land take, operation of the development in line with conditions to minimise environmental effects, absence of tourism amenity areas in the immediate area of the site, security at the site and no increase in traffic. In the event of an unplanned event, the emergency response plan will be activated.

8.4.13. Human health. No significant risks or impacts are predicted on human having regard to the technical assessments under air, noise and vibration, water and material assets, as individual impacts or cumulative effects.

Mitigation and Monitoring

8.4.14. Mitigation measures include environmental monitoring to assess compliance with recommended guideline values for elements monitored, security fencing and warning signs to be continually upgraded and maintained, implementation of landscape and restoration plan and daily inspection of public roads to ensure it is free of dust and dirt.

Assessment

8.4.15. Having regard to the details set out in the EIAR and the nature of the development, in terms of economic effects, I am satisfied that the development will make a **modest positive contribution to the local economy by the provision of direct and indirect employment and the availability of aggregates to the region.**

8.4.16. Effects on human health will be determined by the effects of the development on parameters considered under separate environmental topics e.g. noise, dust, particulate matter, water quality, traffic. Having regard to the information provided in

the EIAR and my assessment of it below, I am satisfied that subject to the implementation of proposed mitigation measures and on-going monitoring of the development, **significant direct, indirect and cumulative effects on human health with not arise as a consequence of the development.**

Biodiversity

8.4.17. The impact of the proposed development on biodiversity is addressed in Chapter 6 of the EIAR. It refers to the red line boundary as the 'site area' (Figure 6.1) and the 'EIAR Study Area Boundary' which includes the dormant quarry to the north of the site and land to the east and south of the proposed extraction area (Figure 6.2). Different zones of influence are defined depending on the sensitivities of habitats or species. The assessment is based on best practice guidelines, scoping with various statutory bodies and NGOs (Table 6.1), desk study and multiple field survey carried out over 2020 and 2021. Field survey included multi-disciplinary walkover, habitat and botanical survey, targeted fauna survey (bat, bird) and invasive species survey. Some limitations are identified, in terms of dense vegetation (making access difficult) and health and safety issues associated with quarry workings (section 6.5.3.2). Key ecological receptors are defined as those of international/European, national, regional (county), and local (high value). Locally important (low value) receptors are not considered key ecological receptors.

Baseline

8.4.18. The EIAR identifies nationally designated sites (pNHAs and NHAs) proximal to the site and those sites within the zone of influence of the development (Table 6.3). These include Muckish Mountain pNHA (proximity) and Sheephaven Bay pNHA (hydrological connection). The report also identifies European sites that fall within the zone of influence of the development. Impacts on these are addressed in the NIS.

8.4.19. Published data for flora and fauna, identifies species which may be present on the site/in the area of the site for further investigation, including mobile species of conservation interest in nearby European sites and invasive species (Tables 6.4 to 6.10). Field survey confirmed the presence of habitats on site (Table 6.11 and Map 6.3). Habitats falling within or adjoining the proposed extraction area are Bog woodland, Scrub, Wet heath, Dry siliceous heath, Wet grassland and Exposed Siliceous rock. Other habitats, Wet willow-alder-ash woodland, Treelines, Hedgerow

and Dry meadow and grassy verge may be disturbed by the new access road to the site. Habitats on the site are common in the wider environment and the site is connected to this via 'avenues' comprising Carrownamaddy river, treelines and hedgerows (Map 6.4 and 6.5). Based on additional fauna survey work in respect of mammals, bats and birds (Appendix 6.2 and 6.3) use of the site by badger, red deer, fox is identified and possible use of the River Carrownamaddy by otter (low suitability of site for bats). Bird species were observed predominantly in the periphery of the site (Map 6.10). A Merlin was observed flying over the site displaying hunting behaviour and suggesting that it was tolerant to activities and noise on the site (quarry active at time of survey). Table 6.12 identifies all Key Ecological Receptors that may be affected by the development.

Impact Assessment

- 8.4.20. Do nothing. EIAR states that with 'do nothing' site would remain in its current condition and with cessation of operations, restoration of the site would occur.
- 8.4.21. Designated sites. No direct impacts are predicted on national sites of nature conservation interest as the site is outside the boundaries of designated sites. The EIAR refers to the conclusions of the NIS in respect of Muckish Mountain SAC and Sheephaven Bay SAC which largely overlap with Muckish Mountain pNHA and Sheephaven Bay pNHA respectively. Based on the findings of the NIS, the report concludes that the development would have no significant impact on the integrity of the national sites, Muckish Mountain pNHA and Sheephaven Bay pNHA.
- 8.4.22. Invasive species. No invasive species identified on the site during survey work. EIAR recommends mitigation measures to ensure no species introduced to the site during development (section 6.7.3).
- 8.4.23. Construction (creation of new haul road and extraction, relocation of static crushing/washing plant to new extraction area once operational). The assessment of potential effects of the proposed development are set out in Table 6.13-6.17 of the EIAR, with potential adverse effects arising from contaminated surface water entering Carrownamaddy river, loss of woodland and treelines, improper layout impacting on badger sett and hotspots of bird activity and disruption of observed fauna.
- 8.4.24. Operation (extraction over 25 years, all ancillary activities, transport to market & operation of on-site office and waste management). The assessment of potential

effects arising during operation are set out in Table 6.18-6.22, with potential adverse effects arising the discharge of contaminated water to Carrownamaddy River, loss of heathland habitat, disturbance of badger sett and population, bird species and other fauna by way of inappropriate layout of development (impacting on badger sett) and noise/vibration, blasting, dust and excessive outdoor lighting.

8.4.25. Decommissioning. No significant impacts are predicted with decommissioning (no additional habitat loss), with the quarry void allowed to rewild with enhancement measures as appropriate (detailed in landscape and restoration sections of EIAR).

Mitigation and Monitoring

8.4.26. Tables 6.13 to 6.22 set out various measures to mitigate potential effects for each environmental parameter identified. Measures set out are detailed and in line with good practice and include:

- Measures to minimise effects on water quality (e.g. surface water management measures, discharge under licence to Carrownamaddy River, standard fuel storage and refuelling measures),
- Avoidance of habitats to minimise loss, e.g. by detailed layout of the development,
- Avoidance of, and restrictive access to, area of badger sett, hotspots of bird activity on periphery of site,
- Oversight of works by Ecological Clerk of Works,
- Examination of works site for nesting birds in advance of works,
- Limited outdoor lighting.
- Monitoring of operational works during the bird breeding season.

Residual Effects.

8.4.27. Subject to the implementation of mitigation measures, the EIAR predicts no significant residual effects for any Key Ecological Receptor, except wet heath and dry heath habitats. Wet heath is linked with Annex I habitat 4010 Northern Atlantic wet heaths with *Erica tetralix* and dry heath with Annex I habitat 4030 European dry heaths, with both habitats assigned county importance (Table 6.12, Identification of Key Ecological Receptors). Construction and operation of the development will result in the loss of c.3,650m² of wet heath and c.13,240m² of dry heath. The loss of

this habitat is considered to have a slight negative effect at a site level after mitigation. It is stated that both habitats are abundant in the area (Map 6.4), the area of extraction has been chosen to be least impactful on the remaining heath within the site as it is already fragmented by the haul road to the west, scrub and other habitats to the north, a rocky outcrop to the east and a haul road to the south. It is also stated that after the operational period the potential exists for restoration of the quarry void, allowing natural revegetation to establish a suitable heath based habitat.

Cumulative effects.

- 8.4.28. No other development is planned in the immediate area of the site for cumulative impacts to occur. Cumulative impacts with the continuation of quarrying include loss of habitat. However, this impact is not considered to be significant having regard to the relatively small area affected, with slight negative effect at the site after mitigation, and to be offset by restoration and the positive effects of the water management system on key ecological receptors.

Assessment

- 8.4.29. Having regard to the detailed survey work carried out in respect of the site, notably of published sources, habitat survey and targeted mammal and bird surveys, design of the location and layout of the development to minimise effects on habitats on site (including breakthrough area connecting extraction area with haul road, Figure 8.6 and Maps 6.6 to 6.10), the relatively modest land take for the development and presence of similar habitat in the wider area and plans for restoration of part of the site to heath habitats, and subject to the implementation of the comprehensive mitigation measures put forward, I am satisfied that **the proposed development will not have a significant adverse direct, indirect or cumulative effect on biodiversity in the area.**
- 8.4.30. If the board are minded to grant permission for the development, I would recommend that the (a) profile of the quarry edge be revised to provide a benched profile to facilitate its restoration to ecological after uses (to provide crevices/ledges for Peregrine Falcon and provision of overburden at the bottom of the quarry face to allow vegetation to become established), and (b) greater clarity regarding the nature of planting along perimeter berms, as discussed in the Landscape section of the EIA below.

8.4.31. Effects on European sites are addressed in the NIS section of this report and having regard to the large overlap in the designated areas, the common conservation interests and site codes, the conclusions drawn apply to the national sites of natural heritage interest in the area of the site, notably Sheephaven Bay pNHA and Muckish Mountain pNHA.

Land, Soil, Water, Air and Climate

Land and Soil

8.4.32. Chapter 7 of the EIAR deals with impacts on land, soils and geology. It is based on desk study, site walkover, examination of trial holes and geological material on site and was carried out in accordance with methodology prepared by the EPA and Institutes of Geologists of Ireland, guidelines for Geology in Environmental Impact Statements. No difficulties were encountered in the compilation of the assessment.

Baseline

8.4.33. The appeal site lies on the southern slopes of Carrownamaddy valley. Soils in the area are characteristically thin and peaty, resulting in poor drainage through soils and represented by a high density of surface water drains, channels and watercourses in the area. All drainage in the area of the site is north towards Carrownamaddy River. The River rises on the northern slopes of Muckish, c.3km to the south west of the site, and flows to the sea at Sheephaven Bay via the Black Strand at Ards Forest park, c.3.5km to the north east of the site. The topography of the worked quarry ranges from 102m OD at the highest point of the site in the south west to 74m OD at the lowest point in the north east part of the site [NB rock has been extracted from this site to a depth of 50mOD to 52mOD, section 8.5.9.2 EIAR]. The topography of the new extraction area is between 86m OD and 74m OD.

8.4.34. Trial pits indicate peaty soils on site of c.500mm over bedrock (Photograph 7.1). A report on bedrock geology is provided in Appendix 7.1 of the appeal (John Colthurst, Geologist). Bedrock geology is Ards Quartzite Formation. Examination of rock samples from the existing quarry indicate four main rock types metaquartzite, gneiss, quartz and schist (Table 7.2). Similar rock types are predicted to be found in the new extraction area. The GSI Aggregate Potential Mapping dataset identifies the site as lying in an area which is mapped as having a very high potential for the supply of crushed rock aggregate. Other quarries registered within 10km of the site are shown in Table 7.3. The nearest Irish Geological Heritage Site is at Muckish

Mountain, c.600m to the south west of the site (geological features are disaggregated quartzite from the Ards Quartzite Formation which has been quarried for glass sand, and rock glaciers). Sheephaven Bay IGH lies c. 3.5km to the east of the site.

Impact assessment.

8.4.35. Construction and operation. Impacts are considered together as works are similar and will involve overburden stripping and rock removal. Bedrock will be extracted from an area of 3ha (land loss) and the haul road will result in the removal of overburden over a footprint of c.2,500m². Formation of breakthrough area (c.500m²) between extraction area and existing haul road (Figure .6) will require stripping and stone surfacing to facilitate transport of material to the processing area. Any minor water channels in the area to be culverted (with 3 side culverts²). Rock will be removed in accordance with Health and Safety legislation and a buffer strip around the external part of the extraction area will ensure stability of external faces. Overburden that is stripped will be used to create screening berms (visual and noise) on the external boundaries of the extraction area. Scrap metal will be collected by a licenced waste collector on an annual basis. Accidental spills or leaks from plant/machinery will be dealt with by availability of a pollution spill kit, regular maintenance and inspection of plant/machinery. Refuelling to be carried out in a bunded re-fuelling area. Refuelling of static plant will be by mobile bunded bowser³ with drip tray and spill mats. Storage of fuels/lubricants within securely bunded areas and maintenance is carried out in a concreted maintenance bay. No impacts of IGHs are predicted as the site is removed from these.

8.4.36. Cumulative impacts. As stated above, no other developments are planned or permitted in the area of the site with the potential for cumulative effects.

8.4.37. Do nothing. If permission is not granted the quarry would close and result in a lack of supply of aggregates and quarry products to the local and regional market.

Mitigation and Monitoring.

8.4.38. Standard mitigation measures to control the potential for pollution of groundwater and bedrock are set out in section 7.7. These include measures referred to above

² To allow retention of underlying substrate.

³ Tank which is enclosed within an outer shell to eliminate risk of leakage.

and appropriate soil handling and storage practices, regular oversight by geologist and implementation of landscape and restoration plan (for decommissioning phase). Monitoring by a competent geologist and geotechnical engineer are proposed on a regular basis.

Residual impacts.

- 8.4.39. The EIAR concludes that by its nature quarrying will have a permanent negative effect on the bedrock removed from the site. This impact will be offset by provision of quarry products to the local and regional markets and creation of new diverse habitats in the restoration of the site.

Assessment

- 8.4.40. Having regard to the relatively modest land take (in conjunction with the land take associated with the existing quarry and past extraction area), the loss of bedrock in the context of its abundance in the wider area is not significant. Extraction is proposed above the water table, with no impacts therefore on the hydrogeological regime, and subject to application of all of the mitigation measures in respect of soil handling and re-use, surface water management practices and management of the risk of accidental spills/spills during refuelling etc. **I am satisfied therefore that the proposed development will have no significant direct, indirect or cumulative impacts on land or soils.**

Water

- 8.4.41. Chapter 8 of the EIAR deals with Water. It assesses the impact of the proposed development on the hydrological and hydrogeological regime. The assessment is carried out according to standard guidance documents (section 8.2.3) and based on desk study and site assessment, involving inspection of site features and analysis of settlement pond system and discharge arrangements.

Baseline Conditions

- 8.4.42. The appeal site is underlain by Ards Quartzite Formation, and is characterised by GSI as being a poor aquifer with only locally productive zones. Aquifer recharge occurs diffusely through the subsoil and outcrops and is limited by the low permeability of bedrock. Most of the effective rainfall is not likely to recharge the aquifer but to flow into the surface water system, as evidenced by high density of surface watercourses in the surrounding area. Small areas of sand and pebble beds

within the quartzite will facilitate rapid groundwater recharge from rainfall events. However, there is no evidence of pebble beds or silica sand underlying the subject site. Aquifer vulnerability is extreme. Regional hydrogeology reflects these characteristics. Rocks within the quarry are likely to be low permeability with any groundwater flow confined to joins and cracks (Table 8.4), with groundwater flowpaths typically short, following topography, and discharging rapidly to seeps, small springs and streams, with likely little major groundwater/surface water interactions. WFD status of groundwater (Northwest Donegal Groundwater Basin) is 'Good'. No groundwater is abstracted from the quarry site and there are no wells on site. There is no source protection area within 10km of the site. Nearest well is c.3km to the north west and lies in a different catchment area.

- 8.4.43. The site lies within the WFD Gweebarra-Sheephaven surface water Catchment and the Lackagh_SC-010 sub-catchment. The site is on the southern slopes of Carrownamaddy River valley, with the river rising in Muckish Mountain and flowing into the sea at Sheephaven Bay. The Carrownamaddy River has Good overall ecological status. EPA monitoring points c.1km upstream and c.2.5km downstream indicate 'High' ecological status (1990) and 'Good' ecological status (2018) respectively.
- 8.4.44. OPW flood maps indicate no risk of flooding at the site or in the area of the site, with closest flood events are 5km to the east and north of the site.
- 8.4.45. The existing office has a mains water supply and toilets have a septic tank system constructed under PA ref. 04/3277. A holding tank has been installed for effluent from the system and effluent is removed periodically by licensed contractor.
- 8.4.46. Effluent from the existing processing and manufacturing area is recycled through four settlement ponds on the site with final discharge from Pond 4 to a small natural drainage channel to the west of the proposed extraction area (see section 8.4.8.2 for details on settlement ponds). Chemical analysis of samples taken from the inflow to Pond 1, outflow from Pond 4 and discharge to the River (upstream of the licenced discharge) are presented in Table 8.3. The results indicate total suspended solids at the outflow from Pond 4 and discharge to the River at <25mg/L, the ELV specified for suspended solids in LWat83.
- 8.4.47. To the north of the proposed extraction area is a redundant quarry deck. It varies in height from 50mOD to 52mOD. Within the area are redundant faces, benches and a

significant quarry void that is filled with water. Drainage from this site is to Carrownamaddy River under licence from Donegal County Council (LWat 83, Figure 8.15). The quarry void captures runoff from the surrounding area and groundwater seeping through the quarry face. Suspended sediment settles out in the quarry void. When water levels rise, clean water is pumped out to the discharge point. The pathway to the discharge point is piped and then an open shallow channel. The applicant proposes to remove the pump, allow the void to fill and have a trickle discharge towards the discharge point via the existing open channel. Immediately prior to the discharge is a small secondary settlement pond with reed growth (Figure 8.15 and Table 8.5). Water quality monitoring of the discharge indicates mostly compliance with conditions of the Discharge Licence (Figure 8.16 and Table 8.6) with no samples of the receiving waters (Carrownamaddy River) showing elevated levels of suspended sediment. The EIAR refers to a number of occasions where pH levels have been slightly below ELV. However, this is considered to be the low pH of inflowing waters, reflected in upstream samples from the river (Table 8.6).

- 8.4.48. Water is required for washing of crushed quarry material at the static crushing and washing area. The majority of this water is supplied from the settlement pond system (Pond 3) where water is continuously recycled. Water is also required for the production of wet batch readymade concrete (RMC), to wash down lorries and plant and for dust suppression in dry weather.
- 8.4.49. Clean water for wet batch RMC plant and washing down vehicles is abstracted from Carrownamaddy River via a pump house in the northwest part of the site. It is also used at the washing and crushing plant when effluent levels in settlement Pond 3 are very low. Total annual abstraction is estimated (based on past performance) to be c.12,000m³ (section 8.4.7.1). It is calculated in section 8.4.7.2 that the abstraction volume and rates are below EPA's threshold for 12.5% of the average flow, Inland Fisheries guidance of 50% of available flow at any one time and ABPs (under application for substitute consent SU 0033) of 25% of available flow at any one time. It is also stated that the majority of water abstracted from the river ends up flowing back into the river as treated effluent having passed through the settlement ponds. In periods of wet weather the settlement pond system discharges off site, by controlled manner by means of an overflow pipe, after treatment.

8.4.50. Existing water which flows through the site comprises one main flow and two minor flows (Figure 8.7). It is proposed to culvert the main flow in the breakthrough area and a minor flow to the south of the extraction area, both with a 3 sided culverts (open to bottom as per IFI recommendations and to safeguard the bottom substrate). Another channel flowing in a northerly direction through the eastern side of the proposed extraction area will be redirected outside the perimeter berm of the site (Figure 8.7).

8.4.51. *Impact Assessment*

8.4.52. Potential effects. The EIAR identifies soil/overburden removal, rock extraction, rock crushing and screening and stockpiling and concrete product all having the potential to generate suspended solids within surface water runoff and use of hydrocarbons and lubricants to contaminate surface or groundwater through leaks and/or accidental spills. In the absence of mitigation impacts are considered to be moderate short-term negative on a sensitive receptor (Carrownamaddy River, groundwater). The EIAR also raises the potential for effluent from the wastewater discharge system to percolate to Pond 2 with the potential for adverse effects on the Carrownamaddy River and adverse effects on the river arising from abstraction.

8.4.53. Surface water. It is proposed to direct surface water runoff from the new extraction area for treatment into the established settlement pond system (for existing drainage routes see Figure 8.3 and section 8.4.8.1). In the initial stages of the development (stripping of overburden) a primary settlement pond (Pond 5) will be constructed to capture runoff, and in subsequent phases a second pond (Pond 6) will be employed within the extraction area (Figure 8.6). Contaminated runoff from these two ponds will be pumped to the existing settlement pond system before discharge off site. The outflow from the pond system (Pond 4) will be piped directly to Carrownamaddy River (i.e. the outfall will be redirected from the existing discharge to the small natural channel to the west of the proposed extraction area) and regulated under discharge licence from Donegal County Council. It is stated that the applicant has applied for review of the discharge licence and has requested that the discharge licence remain in place for the activities on site and proposed extraction area, with the discharge point moved to that of the discharge point for Pond 4. Effluent generated by the new location of the fixed crusher will be directed by new pipework to settlement pond 1 (Figure 8.3).

- 8.4.54. In section 8.4.8.4, the EIAR calculates a retention time of 18 days in the Pond system (Ponds 1 to 4), having regard to the area of the site which drains into the ponds (processing and manufacturing area, new extraction area and breakthrough area), effective rainfall rate, average annual rainfall and recharge capacity of the aquifer. This compares to a recommended retention time of 24 hours for the settlement of fine silt, with a particle size diameter greater than 0.004mm (NB This guideline is set out in Appendix D of the EPA's Guidelines for Environmental Management in the Extractive Industry).
- 8.4.55. Over and above Ponds 1 to 4, Ponds 5 and 6 will provide an additional 1,980m³ settlement capacity an overall on site capacity of 7,330m³. In an extreme weather event, a 1 in 100 year 6 hour storm, where rainfall would be 43.1mm (Met Eireann), 4,375m³ run off would be expected on site (10.15ha, including processing and manufacturing area and entire extension area). In a worst case scenario where only Pond 5 is in place, the available settlement capacity is 5,350m³ + 660m³= 6,010m³. It is stated in the EIAR, section 8.4.8.6, that under such conditions, residence time for effluent is calculated at 29 hours which is adequate to settle out fine silt particles before discharge off site.
- 8.4.56. Groundwater. Extraction will be to a level of 53m OD and it is stated that this is will not affect the water table. However, contaminated effluent arising from fuels and lubricants used/stored on site, may discharge to ground and impact on groundwater quality.
- 8.4.57. Flooding. The EIAR states that surface water will be directed to settlement ponds with no potential for increase in flooding at the site or elsewhere.

Mitigation Measures and Monitoring

- 8.4.58. Mitigation measures include:
- Cessation of extraction and material handling activities during Met Eireann red level weather warnings (where rainfall is 70mm or greater/24hr period, 50mm or greater/12hr period and 40mm or greater/6 hour period).
 - Adequate settlement pond capacity to reduce sediment load (including additional capacity for primary treatment of runoff from new extraction area).
 - Suitable drainage system to direct effluent and runoff to settlement ponds.

- Regular maintenance of settlement ponds and re-positioning of ingress point to Pond 2.
- Suspension of activities during high rainfall events.
- Suspension of abstraction in low rainfall occasions (<0.25mm in previous 7 days).
- Compliance with EU (Water Policy) (Abstraction Registration) Regulations 2018.
- Use of 3 sided culverts.
- Discharge from Pond 4 to single point of discharge, discharge subject to Discharge Licence and regular monitoring of discharge waters.
- Standard measures to store, bund, use, intercept and address potential contaminants/accidental spills.
- Continued use of effluent tank to capture wastewater from the septic tank system serving the office block with regular emptying by licenced contractor with removal to licenced facility for disposal.

Residual Effects

8.4.59. With the implementation of mitigation measures, impacts on surface water quality, groundwater are not considered to be significant (temporary/short term imperceptible negative effects on surface and groundwater).

Assessment

8.4.60. The proposed development comprises extraction of quarried material from the proposed extension area, continued processing/manufacturing on land to the west of the extension area and provision of a breakthrough area, to link the two areas.

8.4.61. Extraction takes place above water table and as identified by the applicant the main impacts to ground and surface water arise from the risk of contamination. Subject to appropriate management of soils, fuel and lubricants on site, risk to groundwater is low given the low permeability of the underlying bedrock.

8.4.62. As set out above, surface water will be managed through the existing settlement pond system, with the addition of two further ponds in the extraction area. The applicant's assessment of capacity seems reasonable, with attenuation periods in excess of the EPAs recommended levels for the proposed extraction area in conjunction with the existing processing/manufacturing area, and as demonstrated in

the monitored discharges from the processing/manufacturing area and discharge from the exhausted extraction area to the north of the subject site.

8.4.63. With regard to extreme weather events, it is not clear from the information in the EIAR how the required settlement capacity is met by the existing Ponds, for example, if these are already filled/filled in part with effluent water. However, I recognise that the calculation carried out is conservative and that mitigation measures propose that in such events extraction and materials handling ceases. This approach is reasonable however, I would also recommend a condition whereby the applicant is required to demonstrate how surface water will be managed in such events if the capacity of the settlement ponds is at risk of being exceeded e.g. by flow control mechanisms from the pond system and/or allowing the floor of the quarry to temporarily flood to prevent hydro-morphology impacts or flooding effects downstream of the site.

8.4.64. The subject development entails abstraction of water from Carrownamaddy River. Abstraction volume is c.12,000m³ per annum which would equate to 32m³ per day (i.e. if abstracted over 365 days), which would trigger a requirement to register the abstraction with the EPA and possibly for future regulation by the EPA. The EIAR calculates the likely percentage of flow in the river that is abstracted by the quarry for two low flow conditions:

8.4.65. A. May, when mean monthly flow in river is at its lowest, 0.1381m³/s:

- River flow is 0.1381m³/s or 11,931m³/day.
- Pump flow rate is 400L/min = 0.4m³/min = 24L/hour= 204L for the 8.5 hour day.
- Abstraction = $204/11,931 \times 100 = 1.7\%$ of available flow.

8.4.66. B. Q95 (flow rate that is exceeded 95% of the time) is 0.026691m³/s.

- River flow at Q95 = 0.026691m³/s= 2306m³/day.
- Pump flow rate at 400L/min = 0.4m³/min = 24L/hour= 204L for the 8.5 hour day.
- Abstraction = $204/2306 \times 100 = 8.8\%$ of flow.

8.4.67. It calculates that in each instance abstraction is well below the EPAs guidelines and the abstraction levels above which abstraction becomes significant (12.5% of low flow). Overall abstraction volume from the quarry is low as a proportion of Q95 flow

i.e. quarry abstraction = c.12,000m³/year or c.1.4% of Q95, where Q95 = 0.026691m³/s, or 841,727m³/year) and for the specific low flow circumstances examined. Consequently, I am satisfied that abstraction rates will not have an adverse quantitative effect on river flow.

- 8.4.68. The applicant has not directly addressed the likely effects of restoration on the water environment. It is evident from the characteristics of the bedrock, into which the site is cut, that surface and groundwater water is likely to ingress into the void as per the worked area to the north of the site. This consequence is reflected in the Site Layout Restoration Plan which indicates the creation of a pond/wet area in the location of the void, surrounding by berms/planting.
- 8.4.69. The EIAR identifies no other developments in the area of the site, with the potential for cumulative effects on the water environment. The EIAR's assessment of effects on the water environment includes all activities carried out on the site and all areas of the site, including arrangements for the continued discharge of surface waters and groundwater seepage from the quarry void to Carrownamaddy River.
- 8.4.70. Having regard to the foregoing, and subject to the comprehensive mitigation measures set out in the EIAR, I am satisfied that the proposed development is unlikely to adversely impact on surface or ground water, **or therefore to have any significant direct, indirect or cumulative impact on the water environment.**

Air

Noise and Dust (Groundworks, Extraction, Processing)

- 8.4.71. Chapter 8 of the EIAR deals with air and ambient noise. It considers the noise and dust issues relating to the construction/operational processes to be employed at the quarry. It is carried out by an appropriately qualified Noise and Vibration Consultant. The Chapter has regard to published guidelines and legislation. No difficulties are encountered in the assessment.
- 8.4.72. The assessment is based on an annual extraction rate of 77,000 tones, with some of this material used to manufacture ready mix concrete and blocks from on-site batching plants. The material will be freed from bedrock in 4 to 5 blasts per year. As part of application it is proposed to move one of the main sources of noise, the crushing, screening, washing plant, from its current location (Z1) further north (Z5, Figure 9.1) away from receptors along Local Road L2182.

Baseline

8.4.73. Baseline monitoring of the processing/manufacturing plant was carried out at six receptors (H1, H2, H4, H5, H7 and H8, Figure 9.1) with all processing plant running and running at full capacity. Noise monitoring was carried out at 15 minute intervals. In practice it is stated that less than 50% of the listed plant (Table 9.1) would be in operation at the same time. Results are shown in Table 9.2 with highest noise levels at H1 (55 $L_{eq}dBA$).

Impact Assessment

8.4.74. Do nothing. It is stated that closure of the quarry would result in an increase in production/traffic elsewhere to supply the construction industry.

8.4.75. Construction. The main sources of noise for construction activities is associated with the removal of topsoil and creation of perimeter berms around the extraction area, typically be tracked excavator and dumper truck. The predicted noise arising from these activities at nearest receptors is indicated in Table 9.8, with noise levels ranging from 51.6 $LA_{eq}1hr$ dBA to 62.0 $LA_{eq}1hr$ dBA, with all noise levels within construction guidelines (70 $LA_{eq}1hr$ dBA – Table 9.7) and occurring for a short duration.

8.4.76. Operation. Section 9.7 provides an assessment of noise likely to arise from the subject development i.e. extraction area, in combination with the processing/manufacturing plant (with relocated fixed plant). Noise arises in the extraction area from the drill rig (drilling blast holes), mobile crushing/screening plant, excavator, dump truck and rock breaker (Table 9.3). Attenuation effects of distance and barriers (perimeter berm on southern and eastern boundaries) are set out in Table 9.4, with predicted noise levels ranging from 39.8 dBA (H6) to 48.8 dBA (H8). Noise arising from truck movements is set out in Table 9.5, with effects ranging from 27.6 $LA_{eq}1hr$ dB (H6) to 46.9 $LA_{eq}1hr$ dB (H1). However, it is stated that significantly more attenuation of noise would be obtained when trucking in the quarry is at its closest location to receptors due to bench differential to surface. It is also stated that noise at H1 would reduce by 4.6 dBA, with the relocation of the fixed crushing/screening/washing plant, to 50.4 dBA.

8.4.77. Cumulative operational noise. Table 9.6 gives the cumulative noise levels assuming that all plant in the processing/manufacturing area, extraction area and fixed plant in new location. Predicted cumulative levels range from 41.5 Leq 1hr dBA (H6) to 52.9

Leq 1hr dBA (H1). The EAIR states that the trucking levels have been conservatively overestimated in the assessment and that surface drilling noises will take place over 10 days to facilitate 5 blasts a year.

- 8.4.78. HGVs on the L2182. The EIA refers to the low level of heavy commercial vehicles (HCVs) predicted on the local road, 4 per hour and to the limited additional effect these would have on existing road traffic noise levels for roadside receptors (i.e. 43mdBA Leq 1hr, at 20m). Vibration is predicted to be less than the threshold of sensitivity to humans (<0.2mm/s peak particle velocity at 5m at all houses).
- 8.4.79. Dust. The EIA states that quarrying has the potential to give rise to dust from vibrating screeners, traffic on quarry roads during dry periods, stockpiles of fine materials and drilling.
- 8.4.80. Unplanned events. In the event of an emergency (e.g. fire to plant or equipment), the emergency response plan would be activated, along with an assessment of emissions. Work would recommence once the problem had been identified.
- 8.4.81. Decommissioning. It is stated in the EIA that noise during decommissioning is likely to be similar to that during construction, with effects likely to be short term and to comply with any legislation, guidance or best practice at the time.

Mitigation and Monitoring

- 8.4.82. Mitigation measures for noise include the provision of 4m perimeter berms on the south and east boundary of the extraction area, movement of fixed crushing/screening/washing plant, high level of maintenance of motors and pulleys, well maintained silencers on plant, good practices in machinery operation and noise buying standards for new/replacement equipment. Noise monitoring is proposed at H1 to H8.
- 8.4.83. Mitigation measures for dust refer to standard industrial techniques e.g. spraying roads in dry weather, filter bag to drill rig, wheel wash at exit, screen covers on fixed plant etc. (section 9.12.1). Monitoring is also recommended to the north, south east and west of the quarry, with adherence to total dust deposition level of 350mg/m²/day averaged over a 28-32 day period.

Residual Impacts

- 8.4.84. The EIA concludes no adverse impacts on noise or dust will arise in the vicinity of the site provided that mitigation measures are applied.

Assessment

- 8.4.85. The applicant's assessment of likely construction, operation, decommissioning and cumulative noise effects is conservative and robust, taking into account all activities on site in conjunction with the processing area (with relocated static plant). However, a key mitigation measure is '*A barrier/berm of minimum height of 4m must be constructed on the south and east boundary of the extraction area*'. This is at odds with description of the development which states overburden will be removed from the extraction area and placed in berms of 2.5m-3.0m in height around the perimeter of the extraction area. However, plans show 4m high perimeter berms (Site Section, drawing no. 12). If the Board are minded to grant permission, this matter should be addressed and 4.0m berms expressly required.
- 8.4.86. There is no data on dust monitoring of the existing quarry. However, no issues or concerns are raised by the PA in this regard in the course of the planning application or appeal, or by third parties, although I noted sand/dust on the public road at the entrances to the site (see photographs). Proposed means to mitigate the potential for dust, monitoring arrangements and emission levels are standard practice within the industry and are capable of managing dust emissions. Noise and vibration from the 4 HCVs per hour on local roads are unlikely to be excessive. No other activities are present or planned in the area with potential for significant cumulative effects.
- 8.4.87. Having regard to the foregoing, and subject to adherence to the full suite of mitigation measures and additional measures in respect of the public road (see conditions), I am satisfied that the proposed development will not give rise to **significant direct, indirect or cumulative significant impact on air quality by way of noise or dust emissions** or therefore to adversely affect the amenity of the area or residences in the vicinity of the quarry.

Noise and Vibration (blasting)

- 8.4.88. Chapter 10 of the EIAR deals with noise and vibration arising from blasting. The assessment is carried out by a qualified Noise and Vibration consultant (section 10.2). The assessment is based on published guidance documents. No difficulties are identified in compiling the information.
- 8.4.89. The development involves soil stripping, blast hole planning and design (for drilling of blast holes) and blasting every 3 months with maximum bench heights ranging

between 10 and 15 metres. All blasts will be undertaken in accordance with health and safety legislation.

Baseline

8.4.90. Blast sensitive receptors are shown in Figure 10.1.

Impact assessment

8.4.91. The applicant proposes blasts with a ground vibration limit of 12mm/sec and air overpressure to 125 dB (Lin peak) with a 95% confidence limit, in line with ELVs for these parameters set out in the Guidelines for PAs for Quarries and Ancillary Activities. Measures to control ground vibration and air over pressure will also counteract the possibility of flyrock.

Cumulative impacts

8.4.92. Do Nothing. It is stated that the quarry would remain in its current status with no restoration carried out and the owner may run out of rock.

8.4.93. Unplanned events. In the event of unplanned events, the emergency response plan will be activated and an assessment of emissions undertaken in advance of recommencement.

8.4.94. Decommissioning. The EIAR states that there will be no blast events during decommissioning.

Mitigation and Monitoring

8.4.95. Mitigation measures are set out in section 10.6.3. These include standard measures within the industry and include, conducting blasts between 12noon and 4pm Monday to Friday, appropriate technical preparation, management and operation of blasts, advance warning etc. Blast vibration monitoring is to be carried out for each blast at a minimum of two locations, one to remain static over the quarry life and one to be placed at a receptor location away from the active face i.e. no void between blast source and receptor. Location of monitoring to be agreed with the local authority.

Residual impacts

8.4.96. With the implementation of mitigation measures, no significant adverse effects are predicted.

Assessment

8.4.97. It is evident from my inspection of the appeal site and surrounding area, that the site lies in a rural area where population is both limited and dispersed. Quarried material has been freed from underlying bedrock by blasting in the past. There is no reference to any monitoring data for this activity in application or appeal documents or in the previous application for substitute consent. This is not ideal.

8.4.98. Notwithstanding this, having regard to the small number of blasts to take place annually, very limited number of sensitive receptors in the area of the site and subject to adherence with the proposed emission limit values in respect of vibration and air over pressure, I am satisfied that the subject development will not give rise to ***significant direct, indirect or cumulative impacts on sensitive receptors by way of noise and vibration from blasting.***

Climate

8.4.99. Chapter 11 of the EIAR deals with climate. It addresses potential impacts that the development may have with regards to climate and climate change. The report refers to international, European agreements and to international, EU and national commitments to reduce greenhouse gas emissions and the limited progress made by the State to meet European targets.

8.4.100. *Baseline*

8.4.101. Baseline data is presented in respect of local and regional climate (temperature, precipitation and wind).

Impact assessment

8.4.102. Do nothing. The EIAR acknowledges that if the permission is not granted the quarry would have to close. It considers that the reduction in GHG emission would be outweighed by GHG emissions relating to customers in the area sourcing quarry products further afield.

8.4.103. Construction/operation. The EIAR states that the equipment to be used on site is already in place and has been used for previous authorised development. It anticipates no increase in emissions, therefore, with the subject development which is similar to previously permitted extraction at the site.

8.4.104. Unplanned events. The EIAR considers the vulnerability of the proposed development to flooding, extreme temperatures and storm events. It stated that the site is not at risk of flooding and has sufficient capacity by way of settlement lagoons

to attenuate rising levels of run off associated with a flood event in the processing and extraction areas. Operational procedures are in place for times when the temperature causes freezing (including gritting of areas and rescheduling of operations/dispatches) and no operations during 'red' level weather events. With regard to windy events, it is stated that plant and buildings are regularly inspected for structural integrity and loose items secured in the event of high winds.

- 8.4.105. Cumulative impacts. The EIAR identifies no developments in the rural areas of the site with the potential for cumulative effects. Low intensity agriculture is not considered to contribute significantly to GHG emissions (compared to other forms of agriculture) and many private forestry lands will act as a carbon sink.

Mitigation and Monitoring

- 8.4.106. Mitigation measures are set out in section 11.6 and include measures to reduce GHG emissions, including good operational practices for plant and equipment, regular servicing, energy consumption ratings considered for new plant/equipment and regular energy audits to assess where energy requirements/usage can be reduced e.g. journey optimisation.

Residual impacts

- 8.4.107. No residual impacts are identified in the EIAR after mitigation.

Assessment

- 8.4.108. There is limited guidance on the assessment of this topic. However, the applicant has made both outward assessment (emissions produced) and an inward assessment (vulnerability to effects of climate change) of the potential effects of the development on climate and with climate change.
- 8.4.109. The main risks to the activities on site are extreme rainfall, flash floods, storms and wind events. As stated in the Water section of this report, the site is not at risk of flooding but has inadequately dealt with the management of surface water during extreme events. This matter can be dealt with by condition. Otherwise efforts to plan for and mitigate the effects of windy weather and storm events are reasonable.
- 8.4.110. Extraction, processing and movement of materials will all give rise to GHG emissions. As stated in the EIAR the proposed development will not increase the output or productivity of the quarry, or the use of machinery/equipment, but will

provide for the ongoing use of the site. Further, the quarry is modest in scale and will not of itself add significantly to background GHG levels. Mitigation measures which actively seek to reduce energy costs will contribute to lowering emissions from the site.

8.4.111. Having regard to the foregoing, and subject to implementation of mitigation measures, I am satisfied that **no significant direct, indirect or cumulative effects** arise as a consequence of climate change and that the application includes specific measures to reduce on an on-going basis GHG emissions.

Material Assets, Cultural Heritage and the Landscape

Material Assets

8.4.112. Chapter 12 and 13 of the EIAR deals with material assets (traffic and services respectively). No limitations or difficulties were encountered in the assessment of effects.

Roads and Traffic

8.4.113. Chapter 12, dealing with traffic, refers to published datasets and guidelines and provides an assessment of road and traffic effects of the site using desk top study and analysis of available traffic data.

Baseline

8.4.114. Access to the appeal site is via the L2182 a local road from the N56 national secondary route, the main transport link in the North and North-west Donegal (Map 12.1). Quality of the local road is reasonably good and is stated to have been recently resurfaced, with the quarry assisting in works outside of the quarry entrance. Sightlines at the entrance are stated to be generally good and to standard (70m at 2.5m back from road edge) and at the junction of the L2182 and N56. There have been no accidents along the local road involving lorries.

8.4.115. The majority of product is supplied within a 20-30km radius to local builders and farmers. Occasionally high end products (e.g. decorative cut stone) is supplied further afield. Currently, on average 4 lorries make 5 return trips to the quarry each day, i.e. 20 return journeys (40 HGV movements). Predicted trips are based on the estimated annual production figures into lorry loads, with a total of 5,366 lorry loads leaving the quarry each year, or 22 per day, if the quarry is open 250 days/year (Table 12.1). Materials moved from the quarry are stone/chip, ready mixed concrete,

concrete blocks, stones and sand. Total number of vehicles entering the quarry each year is 1,050 or 4.2 per day (Table 12.2). These vehicles include cement loads, sand loads, fuel oil and deliveries, courier deliveries and collections.

8.4.116. Table 12.3 presents data for 24 traffic movements associated with the quarry entrance, taken from closed circuit television cameras and which are considered by staff to be representative of vehicle movements. It is stated that recorded levels are consistent with the estimates of lorry traffic. Further, it notes that traffic density on the road is low (c. one journey every 6 minutes) and that quarry traffic makes up almost 40% of all traffic on the road, outside the quarry entrance. Additional traffic surveys for the quarry entrance and junction of local road L1282 with the N56 are presented in Tables 12.4 and 12.5 (average hourly traffic volume on a working day). Traffic volumes are very low.

8.4.117. It is stated in the EIAR that the quarry is at a lower elevation than the local road, with no risk of drainage from the site entering the public road, and that there is plenty of parking at the site.

Impact Assessment

8.4.118. Due to the low density of traffic and high quality of the local county road, impact of the quarry is not considered to put extra undue pressure on either the road network or traffic. The impact on roads and traffic is assessed as negligible.

Mitigation Measures

8.4.119. There are no specific measures in respect of traffic. Dust management measures are considered under Air.

Residual Impacts

8.4.120. None predicted.

Assessment

8.4.121. The applicant's assessment of vehicle movements is based on annual production figures and imports to the site. The number of loads leaving the quarry is 5,366 per annum. If each of these carry 20 tonnes (as indicated), then 107,320 tonnes of product leave the quarry each year (5,366 x 20). This compares to an annual extraction rate of 75,000 tonnes. The shortfall is in part made up by imported materials of 21,000 tonnes (1,050 loads entering the quarry each year x 20 tonnes).

However, I note that Table 12.1 refers to ex-pit sales and I am assuming that this is material which has already sourced from the existing site and is stored in stockpiles. Recorded information on 24 hour traffic movements associated with the quarry entrance indicate that the estimated number of HGV movements are less than those recorded to be entering and exiting the site (compare Tables 12.1 and 12.2 with Table 12.3).

8.4.122. Notwithstanding this, it is evident from inspection of the site that it lies on a very lightly trafficked rural road that is in generally good condition with sufficient forward distance, width and/or informal passing bays that facilitate two way traffic movements. The quarry generates a large proportion of traffic on the road and this would detract from its amenity, in particular given the use of the wider area by tourists, walkers etc. However, overall vehicle numbers are not excessive nor is there any proposed increase over existing.

8.4.123. Having regard to the foregoing, I am satisfied that the development will not result in **direct, indirect or cumulative adverse effect on traffic or transport in the area of the site.**

Site Services

8.4.124. Chapter 13 of the EIAR deals with site services. It considers the effects of the development on surface water, water supply, foul drainage and utility services. The EIAR refers to guidelines in respect of the preparation of EIA and the cross over with other sections of the EIAR.

Baseline

8.4.125. The EIAR refers to the location of the site in a rural area on the southern slopes of Carrownamaddy River, residential dwellings in the vicinity of the site (Figure 13.1), the underlying geological resource, geological heritage sites in the area of the site (Map 13.1), Natura 2000 sites within 15km of the quarry, the requirement for water at the site (mains supply and Carrownamaddy River), arrangements for the disposal of waste water, use of electricity (ESB connection which serves the office block, static crusher/washer, dry and wet batch plant) and telephone connection.

Impact Assessment

8.4.126. The EIAR predicts no potential for adverse effects on residential development given the continued building of properties in the area, absence of any increase in traffic as a consequence of the development and noise, vibration and dust emissions to be below recommended guideline levels at nearest dwellings, environmental mitigation measures and monitoring to ensure compliance.

8.4.127. Loss of geological reserve is acknowledged but will be offset by contribution of building materials to local, regional and national economy. Loss of habitat is considered to be mitigated by use of overburden to create new berms around the open perimeter of the site.

8.4.128. No impacts are predicted for the availability or quality of public utilities in the area, groundwater or on scenic routes.

Mitigation and Monitoring

8.4.129. The EIAR refers to mitigation measures set out in relevant sections of the EIAR. These include arrangements for monitoring.

Residual Impacts

8.4.130. No residual impacts are predicted.

Assessment

8.4.131. The subject development comprises the extension of an existing working quarry. Land take is not significant and no additional pressure is likely on material assets (services). Further, the appeal site is removed from sites of geological, cultural or natural heritage interest and/or is not likely to have any adverse impacts on these or other as indicated in other sections of this report.

8.4.132. Waste management is considered in the context of waste water arising on site. The EPA's guidelines for environmental management in the extractive industry recommends measures to manage all forms of waste generated at the site including unsuitable materials, rejected projects, waste oil, batteries etc. If the board are minded to grant permission for the development I would recommend a standard condition requiring best practice to minimise the production of waste and its appropriate removal from site.

8.4.133. Having regard to the foregoing, I am satisfied that **no significant direct, indirect or cumulative effects on material assets (built services or waste management) will arise as a consequence of the development.**

Cultural Heritage

8.4.134. Chapter 14 of the EIAR deals with cultural heritage. It assesses the likely effects of the development on cultural heritage, archaeology and architecture. The assessment has regard to published sources of information (written and graphic).

Baseline

8.4.135. There are no archaeological features on the quarry site or in its immediate area. Nearest sites are shown in Figure 14.1 and Table 14.1 and include a burial ground c.1.5km to the north east of the site (closest site of archaeological interest). The nearest archaeological excavations have been carried out c.1.5km to the north west of the site in 2016. Two stone cottages are listed as Protected Structures in the townland of Carrownamaddy. One lies c.200m to the east of the site and other 100m to the south (Figure 14.3, photographs 14.1 and 14.2). Muckish Mountain is identified as a feature of cultural heritage interest, with the mountain the subject of literature, poetry and art, and popular with hillwalkers. The EIAR refers to potential effects on material assets, natural resources and transport, all of which are addressed in other sections of the EIAR and this report.

Impact Assessment

8.4.136. The EIAR states that the development will have no negative impacts on Muckish mountain or protected structures as these are removed from the subject site and the development will have no adverse indirect effects on them. No adverse impacts are predicted on material assets, natural resources or transport for the reasons stated elsewhere in the EIAR. It is stated that there is potential to unearth archaeological artifacts/sites.

Mitigation and Monitoring

8.4.137. The EIAR recommends pre-development testing at the extraction site. The applicant's subsequent Report on Archaeological Assessment (May 2021), states that on the basis of two cuttings into overlying peat to bedrock, with no findings, and location of the development in a natural wet basis, it is considered that there is nothing to be gained from test trenches across the site and that carrying these out, in

a feature less landscape, may be impractical and result in the digger sinking into the bog. It is stated in the planning file that the Assessment was referred out to the DOCHG, with no comments made on this aspect of the development in correspondence dated 21st May 2021 from the Department.

Residual Impacts

8.4.138. The EIAR considers that there are not expected to be any significant negative impacts with the operation of the quarry.

Assessment

8.4.139. Having regard to the foregoing, my inspection of the appeal site and the surrounding area, the absence of any outstanding concerns raised by the Department and subject to archaeological monitoring of excavation works (given absence of pre-development testing), I am satisfied that there will be **no significant direct or indirect impact on cultural heritage**. The EIAR did not expressly examine the potential for cumulative effects. However, given the absence of direct and indirect effects and limited proposed development in the wider area of the site, I am satisfied that **no significant cumulative effects arise in respect of cultural heritage**.

Landscape

8.4.140. Chapter 15 of the EIAR deals with impacts on landscape. It identifies the likely landscape (landscape change) and visual effects (effect of landscape change on receptor) of the development based on guidance documents, desk study and field work. No difficulties are stated to be encountered in carrying out the assessment.

Baseline

8.4.141. The EIAR refers to the location of the appeal site in a sparsely populated rural area (Map 15.1) with surrounding agricultural and forestry land uses in a wider landscape that is dominated by mountains. Habitats in the area of the site are shown in Map 15.3 (from Biodiversity chapter).

8.4.142. Landscape. The appeal site lies in a Structurally Weak Rural Area (Map 15.4) and an area of Moderate Scenic Amenity, with Areas of High and Extremely High Scenic Amenity to the west and south.

8.4.143. Visual. It is stated in the EIAR that recently redundant quarry faces can be seen from the north and north west of the quarry but not from the south or east (due to screening berms/topography). The southern half of the quarry, including processing and ancillary activities, can be seen from the approach road to the east. From the west silos are visible. Map 15.6 identifies at locations at which the visual assessment was carried out and photographs of the quarry from the points where it is visible (photographs 1-7). The assessment identifies the most dominant features on the site as the silos.

Impact Assessment

8.4.144. Landscape. The EIAR refers to the location of the development in a landscape that is characterised as having Medium landscape value and sensitivity, being reasonably tolerant to change. The EIAR acknowledges that the existing quarry has changed the landform and vegetation cover, however it considers impact of the proposed development is Low due to the localised nature of proposed development and location within an established quarry site. Overall impact on landscape is therefore considered to be 'Slight/Moderate'. It is stated that the loss of existing vegetation as a result of removal of overburden will be offset by the creation and maintenance of berms and covering of same by translocated vegetation and judicious planting on eastern and southern berm sides. It is also stated that the restoration of the recently dormant extraction area will allow for the creation of new habitats and rewilding of this area for reclamation by nature.

8.4.145. Visual effects. The EIAR states that field survey confirmed the application area is screened from the majority of viewpoints due to the topography of the subject site and study area, mature vegetation, forestry and berms. However, it does accept that the working yard is visible from a number of locations due to their height and contrasting colours against the natural landscape. Visual receptor sensitivity is considered to be 'Medium' due to the popularity of the area for hill walking and visual amenities enjoyed by residents. Magnitude of impact is considered to be 'Low' due to the minor loss of characteristics of the existing landscape and degree to which rock extractions have altered the landscape to date. Overall magnitude of visual impact is considered to be 'Slight/Moderate'.

Mitigation and Monitoring

8.4.146. Construction/operation. The EIAR refers to berms around the quarry site which have been allowed to regenerate with indigenous vegetation over time (to be retained). These are to be supplemented by additional berms around the new extraction area (Figure 15.1), with vegetation carefully removed and used to cover new berms (preserving biodiversity on site). Additional planting is also proposed around the *eastern and northern banks* of the berms to add the biodiversity value of the area and mitigate against loss of stripped habitat within the extraction area. The EIAR, in section 15.8.2, also proposes planting of semi-mature native species on *southern and eastern banks* of the new berms and planted of suitable areas with native wildflower species from a DAFM approved supplier. Additional mitigation measures include painting of the silo structures in greens/greys to reduce visual impacts.

Restoration. On cessation the quarry the restoration plan is to restore the worked quarry and entire site to ecological after used to produce a self-sustaining habitat. Water will be allowed to collect into Ponds 5 and 6 and the worked extraction area will merge with the dormant quarry to the north. Vertical faces will be left, with crevices and ledges and may be attractive to Peregrine Falcon. Available overburden at the bottom of the quarry face to allow vegetation to become established and if available to create/improve perimeter berms. Recolonisation will take place naturally, with the spread of overburden carrying a natural seed mix.

Residual Impacts

8.4.147. Subject to mitigation measures, the EIAR considers that no significant negative landscape or visual impacts will arise.

Assessment

8.4.148. Having regard to my inspection of the appeal site and surrounding area, I am satisfied that the current quarry is not overly visible from the public road network with topography and roadside vegetation typically screening views. The proposed development will extend the quarry void, however, for the same reasons, and subject to provision of additional berms to the south and east of the working area, I am satisfied that landscape and visual effects will not be significant.

8.4.149. Plans for the planting of berms are unclear, with reference to vegetation being carefully removed to cover new berms and to additional planting (native trees and wildflower species). As the revegetation of berms is cited as a means to mitigate the

loss of heath habitat, it is important that the nature of vegetation on the berms is clarified. This matter can be addressed by condition.

8.4.150. Plans for the restoration of the site to ecological after use, have the potential to have a positive long term effect on the landscape and visual amenity of the area as well as positive effects on biodiversity. However, references in the EIAR to the details of restoration are inconsistent with plans. For example, the EIAR refers to water being allowed to collect in Ponds 5 and 6 and the creation of crevices and ledges whereas the restoration plan indicates the entire extraction area filled with water and sections show a single bench. This matter should also, therefore be addressed by condition, requiring detailed arrangements for the restoration of the site, creation of a benched profile with the quarry in particular at the upper levels (to the benefit of ecological after use) and treatment of berms to be addressed in advance of commencement.

8.4.151. I note that there is no planned development in the area which has potential for significant cumulative effects.

8.4.152. Subject to the forgoing and having regard to inspection of the appeal site and the surrounding area, the limited views of the site from the public road network largely by virtue of vegetation and topography, I am satisfied that the applicant's visual and landscape assessment accurately predicts **an absence of direct, indirect and cumulative significant landscape effects** as a consequence of the development.

Interactions

8.4.153. Chapter 16 of the EIAR summarises interactions and inter-relationships in Table 16.1. I am satisfied that the key interactions have been identified and addressed in the EIAR (Table 15-1). They are also addressed also in this report and notably include population and human health with water, air quality, noise and vibration and landscape and visual effects and the interactions between water, biodiversity and soils. Similarly, emissions to air have interactions with population and human health, biodiversity, land, soils and geology and climate.

8.4.154. Reasoned Conclusion on the Significant Effects

8.4.155. Having regard to the examination of environmental information contained above, and in particular to the EIAR, and the submissions from the planning

authority, prescribed bodies and observers in the course of the application, it is considered that the main significant direct, indirect and cumulative effects of the proposed development on the environment are as follows:

- **Population and human health** – For the duration of the development, short term positive direct and indirect effects on the local economy and short term negative effects arising from on-going HGV traffic on local roads, and an increase in noise and dust in the immediate area of the site. These effects will be mitigated by the location of the development in a sparsely populated rural area, modest numbers of HGV traffic and conditions to minimise environmental effects to acceptable levels.
- **Biodiversity** – The proposed extraction will result in the permanent loss of 3.0ha of natural habitat from the subject site, including wet and dry heath, and an increase in the area of the quarry site and disturbance effects. Significant impacts will be mitigated by the careful siting of the proposed development to avoid sensitive locations within the site, restricted access to sensitive areas, oversight by an Ecological Clerk of Works, limited outdoor lighting, measures to protect water quality, revegetation of perimeter berms and restoration to ecological after use.
- **Water** – Operation of the quarry in proximity to the Carrownamaddy River, abstraction of water from the river and discharge of wastewater to it has the potential for significant effects on the water environment. However, these will be avoided by the modest level of water to be abstracted and the arrangements for the management of surface water flows on the site and discharge of water through a settlement pond system to meet water quality objectives to be set out in the discharge licence.
- **Material Assets** – For the duration of the development, the proposed development will continue to contribute to a significant proportion of HGVs the L2182. However, this effect will be mitigated by the relatively modest number of vehicle movements generated by the development and relatively small number vehicles and pedestrians using the rural road. Expansion of the extraction area has potential for landscape and visual effects. However, these are offset by the context for the development which largely precludes significant views of the site from the public road network and sensitive

receptors and proposals for additional bunding and landscaping. In the longer term restoration of the site to ecological after uses will have a permanent positive landscape and visual effects in the area.

- 8.4.156. Notwithstanding the conclusion reached in respect of the inability of the proposed measures to fully mitigate the impact of the development, it is considered that the environmental effects would not justify a refusal of planning permission having regard to the overall benefits of the proposed development.

8.5. **Appropriate Assessment**

Screening

- 8.5.1. Screening Report. The applicant has submitted a Natura Impact Assessment (NIS) in respect of the development (this updates the AA Screening Report submitted in February 2021 which found no potential for effects on European sites). In section 3.2 of the NIS a screening exercise is carried out. It identifies European sites within the zone of influence of the project and the potential for effects on the conservation interests of Muckish Mountain SAC, Sheephaven Bay SAC and Derryveagh and Glendowan SPA by virtue of proximity or hydrological connectivity.
- 8.5.2. Test of likely significant effects. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s). The proposed development is examined in relation to any possible interaction with European sites to assess whether it may give rise to significant effects on any European Site.
- 8.5.3. Description of development. The proposed development is described in Chapter 3 of the EIAR and in section 4.4 of the NIS. It is also described in section 3.0 of this report. It comprises the lateral extension of the quarry, with extraction of rock above the water table by blasting techniques. Material that is extracted will undergo primary crushing and screening within the extraction area and secondary processing within the adjoining, existing processing area. Aggregate and aggregate products will be transported off site. Surface water arising in the extraction area will be directed to two settlement ponds which will be linked to the existing surface water management system at the site, with discharge of clean water to the Carrownamaddy River under licence. Water will also be abstracted from the river for

some on-site activities and when water in the settlement pond system (Pond 3) is low.

- 8.5.4. Having regard to the characteristics of the proposed development, the following issues are considered for examination in terms of implications for likely significant effect on European sites discharges to surface water, discharges to air, habitat loss and disturbance.
- 8.5.5. Submissions and observations. The appellants refers to:
- (a) the Board's responsibilities under the Habitats Directive, to screen the development and to make a decision as required under article 6.3,
 - (b) case law, which has clarified the threshold for appropriate assessment 'the possibility of significant effect' (Sweetman & Others v An Bord Pleanála, 259/1 and Kelly v An Bord Pleanála [2014] IEHC 400).
- 8.5.6. It is argued that on the basis of total lack of certainty in the information submitted, it is not possible for the Board to make a decision to comply with the requirement for the absence of lacunae, and complete, precise and definitive conclusions capable of removing all reasonable scientific doubt. It is also argued that the PA failed to carry out a proper appropriate assessment.
- 8.5.7. In the course of the planning application DTCAGSM (6th April 2021) raise concerns that risks to Merlin population (estimated 6-11 pairs) that support the Derryveagh and Glendowan Mountains SPA are inadequately assessed. It requires the applicant to determine whether Merlin using the site form part of the population that supports the adjacent SPA and recommends a series of dedicated Merlin surveys to establish the link. The Department advise that the exhibition of tolerance behaviour is not sufficient evidence to conclude that merlin will not be adversely impacted by the development. Subsequent to the submission of the Addendum NIS, the Department recommend conditions to be attached to the permission.
- 8.5.8. European sites. The development site is not located in a European site. However, it is located c.450m north of Muckish Mountain SAC (001179), c.750m north of Derryveagh and Glendowan SPA (004039) and approximately 3.5km south west (and upstream) of Sheephaven Bay SAC (001190). Having regard to the source-pathway-receptor model, the zone of influence of the project or its effects are likely to be confined to these sites by virtue of:

- (a) physical proximity and potential damage to habitats e.g. dust,
- (b) disturbance of mobile species e.g. within the European sites or if the site itself or the surrounding area hosts these species,
- (c) habitat loss e.g. if the site hosts mobile species of conservation interest, and
- (d) hydrological pathway e.g. risk of contamination of water and adverse effects on downstream water quality dependent habitats and species.

8.5.9. These sites and their conservation interests are listed in Table 1 and described briefly below:

- Sheephaven Bay SAC (001190). Sheephaven Bay is a north-facing bay, situated north of Creeslough on the northwest coast of Co. Donegal. The site occupies the entire inner part of the bay, and includes the intertidal area at Carrickgart. The bedrock geology of the site is quite varied, with schist (at least two types), quartzite and metadolerite present. The site receives the flows of a number of rivers, notably the Lackagh River, the Duntally River, the Faymore River and the Carrownamaddy River. The site contains a diversity of habitats ranging from mudflats, saltmarshes and sand dunes, to lakes, rivers, heath, scrub and woodland. Habitats and/or species of conservation interest are set out in Table 1. Conservation objectives are to maintain or restore the conservation condition of the habitats and/or species of conservation interest by reference to defined attributes and targets e.g. habitat area, distribution, structure and composition.
- Muckish Mountain SAC (001179). Muckish Mountain is situated 7 km west of Creeslough in Co. Donegal. It is a large flat-topped quartzite mountain with deposits of sand around it, which have been formed by the weathering of quartzite. Large areas of quartzite and schist scree occur on the mountainsides. Features of conservation interest are Alpine and Boreal heaths and Siliceous rocky slopes with chasmophytic vegetation. Conservation objectives are to maintain the conservation condition of the habitats and/or species of conservation interest by reference to defined attributes and targets e.g. habitat area, distribution, structure and composition.
- Derryveagh and Glendowan Mountains SPA (004039). Derryveagh and Glendowan Mountains SPA is an extensive upland site in north-west Co.

Donegal, comprising Glenveagh National Park, a substantial part of the Derryveagh and Glendowan Mountains and a number of the surrounding lakes. Much of the site is over 300 m above sea level, rising to a peak of 678 m at Slieve Snaght. The solid geology is predominantly quartzite. The substrate over much of site is peat, with blanket bog and heath comprising the principal habitats. The site is a Special Protection Area, of special conservation interest for Red-throated Diver, Merlin, Peregrine, Golden Plover and Dunlin. Conservation objectives are generic and are to maintain or restore favourable conservation condition of the bird species listed as special conservation interest.

- 8.5.10. The potential for effects other sites in the wider area can be ruled out due to the absence of connectivity or distance from the appeal site, and therefore the absence of potential for effects by way of disturbance or effects on territory (see also Table 3.1, NIS).

Table 1 - Summary Table of European Sites within possible Zone of Influence

European Site (code)	List of Qualifying interest /Special conservation Interest	Distance from proposed development (Km)	Connections (source, pathway receptor)	Considered further in screening Y/N
Sheephaven Bay SAC (001190)	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Humid dune slacks [2190]</p> <p>Machairs (* in Ireland) [21A0]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p><i>Euphydryas aurinia</i> (Marsh Fritillary) [1065]</p> <p><i>Petalophyllum ralfsii</i> (Petalwort) [1395]</p>	c.3.5km (north east)	Carrownamaddy River discharges into Sheephaven Bay SAC	Yes.

Muckish Mountain SAC (001179)	Alpine and Boreal heaths [4060] Siliceous rocky slopes with chasmophytic vegetation [8220]	c.450m (south)	No direct connectivity, possible effects by dust blow, carried forward conservatively.	Yes.
Derryveagh and Glendowan Mountains SPA (004039)	Red-throated Diver (<i>Gavia stellata</i>) [A001] Merlin (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Dunlin (<i>Calidris alpina schinzii</i>) [A466]	c.750m	Mobile species of conservation interest in vicinity of the site with potential for effects by way of disturbance effects on territory.	Yes.

8.5.12. Identification of likely effects. There is no direct loss of habitat for any European site as a consequence of the development. Potential indirect effects arise from:

- Emissions to water. The proposed development is connected to Sheephaven Bay SAC via Carrownamaddy River. Discharge water from the quarry's water management system discharges to the River and there is potential therefore for impacts on water quality in the River e.g. arising from increased sediment load, accidental spills etc. The appeal site is considerably removed from the SAC and, in the absence of mitigation, with dissipation and dilution, adverse effects on water quality in the SAC, and water quality dependent habitats and species of special conservation interest, are unlikely. However, this European site is carried forward conservatively for appropriate assessment.
- Emissions to air. The appeal site lies c.450m north of Muckish Mountain SAC. Features of conservation interest are Alpine and Boreal heaths and Siliceous rocky slopes with chasmophytic vegetation. The NPWS Management Plan for the SAC 2005-2010 maps the location of these features (see attachments), with heath occurring c.450m south of the site. Siliceous rock slopes are further removed from the site and on more elevated terrain. There is some potential for dust deposition to adversely impact on heath habitat, a feature of special conservation interest, and this site is carried forward for appropriate assessment.
- Noise, vibration and land take. Operational noise may affect mobile species of conservation interest in Derryveagh and Glendowan SPA given the proximity of the European site to the appeal site and the potential for disturbance and/or loss of territory if the site is utilised by these species. Consequently, the potential for effects on this SPA is carried forward for appropriate assessment.
- Cumulative effects. The appeal site lies in a rural area where there is little existing or planned development of a nature that is likely to result in cumulative effects on European sites. The proposed development comprises an extension to the existing quarry, and there is potential for cumulative effects, with increasing land take (there is no intensification of activities and therefore no increase in overall noise, dust etc.).

- 8.5.13. Mitigation. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.
- 8.5.14. Screening determination. The proposed development was considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could have a significant effect on European Site Nos. 001190, 001179 and 004039, in view of the site's Conservation Objectives, and Appropriate Assessment is therefore required.

Appropriate Assessment

- 8.5.15. The Natura Impact Statement. The application includes NIS and Addendum NIS. The documents examine and assess the potential adverse effects of the proposed development on the following European sites:- Sheephaven Bay SAC (001190), Muckish Mountain SAC (001179), and Derryveagh and Glendowan Mountains SPA (004039). The assessment of effects has regard to the detailed location, nature, scale and form of the development, projected capacity of settlement treatment system (including for adverse events), means by which water that is conveyed through the site/managed, potential sources of pollution, estimation of flows and consequences of abstraction on Carrownamaddy River, water quality data and monitoring data in respect of past discharges, walkover, botanical and field surveys of the site in respect of fauna, birds and bats. The NIS Addendum Report includes details of Merlin surveys carried out in April, May and June 2021.
- 8.5.16. The NIS and NIS Addendum report conclude that the development, subject to mitigation measures, will have no likely significant or significant negative impact on any Natura 2000 site, including with the appointment of an Ecological Clerk of Works providing additional security to ensure that all mitigation measures are carried out.
- 8.5.17. Subsequent to the submission of FI, the DTCAGSM (26th July 2021) recommend conditions to minimise potential for effects on Merlin. These are to restrict blasting to the period outside of the bird nesting season (April to June inclusive) and provision of compensatory habitat.
- 8.5.18. The NIS has an unusual structure where potential adverse effects are identified, mitigation measures are referred to and conclusions are reached in respect of

impacts as a whole (see NIS). Notwithstanding this, having reviewed the documents and submissions and consultations, I am satisfied that the information allows for a complete assessment of any adverse effects of the development, on the conservation objectives of the three European sites considered alone, or in combination with other plans and projects.

8.5.19. Appropriate Assessment of Implications of Proposed Development. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest/ features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.

8.5.20. European Sites. The following sites are subject to Appropriate Assessment, Sheephaven Bay SAC (001190), Muckish Mountain SAC (001179), and Derryveagh and Glendowan Mountains SPA (004039). A description of the sites, their features of interest and conservation objectives are set out in the applicants NIS and they are summarised above.

8.5.21. Aspects of Proposed Development. Aspects of the proposed development that could adversely affect the conservation objectives of the European sites include:

- Emissions to water, with downstream effects on water quality and water quality dependent habitats and species of conservation interest.
- Emissions to air, with deleterious effects on habitats of conservation interest in the area of the site.
- Noise, vibration and land take, with disturbance to mobile species of conservation interest and/or loss of territory.
- Cumulative effects, arising from the extension of the quarry and cumulative land take.

Sheephaven Bay SAC

8.5.22. Conservation interests of Sheephaven Bay that are relevant to the subject development are those habitats and species which are dependent on water quality and which fall within the influence of the outfall of Carrownamaddy River where it discharges into the SAC at the Black Strand (see attachments). These are identified in Table 6.2 of the NIS and include Mudflats and sandflats, Atlantic Salt Meadows and Sand communities. (NB The NIS refers to Mediterranean salt meadows at the

location of where Carrownamaddy River flows into Sheephaven Bay. However, this is not consistent with the Conservation Objectives for the site which show this habitat further south at Ards Strand – see attachments).

8.5.23. The planning application, EIAR and NIS describe the surface water management arrangements for the existing site and of the proposed extraction area. These have been discussed in detail in the EIAR section of this report with the assessment of likely effects on water quality in Carrownamaddy River are considered in the context of scientific information on calculated retention time in settlement lagoons (including under storm conditions), calculated effect of abstraction on Carrownamaddy River, arrangements for the management of potential contaminants and past history of discharge quality (and therefore effectiveness of settlement pond system and pollution management measures). For the reasons stated, and subject to compliance with proposed mitigation measures, I am satisfied that the arrangements for discharge are unlikely to result in deleterious effects on water quality within Carrownamaddy River or therefore to the features of Special Conservation Interest located >3km downstream of the site.

8.5.24. The appeal site lies in a rural area where there is little other substantial development likely to adversely impact on water quality. Currently, water quality in the river is 'Good' (WFD Status 2016-2021) and with the River 'Not at Risk' of failing to meet WFD objectives by 2027. Consequently, there is no real risk of cumulative effects.

8.5.25. Integrity Test. Following the appropriate assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of Sheephaven Bay SAC in view of the Conservation Objectives of this site. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

Muckish Mountain SAC

8.5.26. Muckish Mountain SAC lies to the south of the appeal site. The main aspect of the development with potential to affect the special conservation interests of the site, Alpine and Boreal Heaths and Siliceous rocky slopes are emissions to air. These include dust and emissions from plant/equipment.

8.5.27. Special conservation interests comprises Alpine and Boreal Heaths and Siliceous rocky slopes with chasmophytic vegetation. Alpine and Boreal Heath habitat lies

c.450m to the south of the quarry, Siliceous rocky slopes are further removed (c.3km southwest). The NIS states that Alpine and Boreal Heaths are sensitive to agriculture and recreation with the main threats air pollution, over grazing and erosion. For Siliceous rocky slopes with chasmophytic vegetation, site sensitivities are erosion and introduction of non-native invasive species and main threats are non-native invasive species. Data is compiled from NPWS data (The Status of EU Protected Habitats and Species in Ireland, 2019 and Natura 2000 standard data forms). Sensitivities and threats are reflected in the data on Conservation Objectives for the site. For instance, with nitrogen deposition noted as being relevant to the function of the ecosystem (Alpine and Boreal Heath habitat).

- 8.5.28. The prevailing wind direction in the north west is between south and west.. This together with the distance between appeal site and the location of features of special conservation interest, industry standard mitigation measures put forward in respect of the site (discussed in section 8.4.80 and 8.4.81 of this report) and conditions to limit dust levels at the perimeter of the site to 350 mg/m²/day (when averaged over a 30-day period), it is highly unlikely that dust emission from the site will have a significant adverse effect on the Special Conservation Interests of the this SAC. In particular, I note that dust emission levels are unlikely to exceed 1000mg/m²/day, the threshold where it is considered that dust could have an effect on sensitive ecosystems. With regard to cumulative effects, there are no other activities in the area of the site, or planned activities, which give rise to significant dust emissions.
- 8.5.29. With regard to vehicle emissions, there is no increase in vehicles/plant on the site over and above existing levels and emissions from the modest number of vehicles/plant on site are likely to contribute little to background levels.
- 8.5.30. Integrity Test. Following the appropriate assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of Muckish Mountain SAC in view of the Conservation Objectives of this site. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

Derryveagh and Glendowan Mountains SPA

- 8.5.31. This SPA is designated under the Birds Directive of special conservation interest for 5 bird species, Red-throated Diver, Merlin, Peregrine Falcon, Golden Plover and

Dunlin, with the site hosting nationally important breeding populations of the five species. Aspects of the proposed development that could adversely affect the conservation objectives of this European site are disturbance by way of noise, vibration (site preparation, extraction, processing, blasting) and land take with the potential for loss of territory.

- 8.5.32. Red-throated Diver. Birdwatch Ireland state that this species is a winter visitor to all Irish coasts from September to April, with a very small breeding population in County Donegal. It states that the species breeds on small freshwater loughs with nests in aquatic vegetation. With little food at the loughs the adults traveling to more productive waters at the coast to forage. In winter the species are well distributed around the Irish coastline and are typically associated with shallow sandy bays. The NIS refers to the most commonly reported threats to the species and these include mining and quarrying. The species are also easily disturbed by human activity.
- 8.5.33. The Site Synopsis for the SPA states that the site is one of only a few locations where the species breed in Ireland, with a birds using a number of lakes within the SPA for feeding. In 2010 a survey recorded 6 pairs at the site.
- 8.5.34. The bird observation report identified no Red-throated Diver on/near the site (appendix VI, NIS). The NIS considers that whilst the site may offer suitable foraging habitat for Red-throated Diver, as the species are easily disturbed by human activity, overall it is considered that the development is very unlikely to have a significant negative impact on species or its surrounding habitat. Specific mitigation measures in respect of bird populations include NPWS to be informed before blasting operations, NPWS to be informed of any observation of bird species of interest on the site (by ECoW).
- 8.5.35. In their observation on the planning application, the DTCAGSM do not raise concerns in respect of this species, but in observations on the Addendum NIS recommend that blasting is undertaken outside of the bird nesting season to avoid disturbance effects to Merlin (below) and/or nesting Red Throated Diver in nearby lake habitat within the Derryveagh and Glendowan Mountains SPA.
- 8.5.36. From the information on file, it is evident that Red Throated Diver have not been observed on the site and that it does not provide likely breeding territory but possible foraging habitat. Any extension of quarrying risk loss of foraging habitat and a disturbance over a wider area. However, as the appeal site and surrounding lands

are already affected by noise and human activity, as site comprises heath habitat that is widely available in the area, and as no concerns are specifically raised in this regard by the Department, it is not likely that adverse effects on the species would occur as a result of land take or day to day activities. The nearest lake habitat within the SPA is c.750m south of the appeal site and there is potential for breeding in this location. The recommendations of the NPWS to preclude blasting during the bird nesting season would remove the potential for adverse effects on the species during the breeding season from this activity.

- 8.5.37. Merlin. Birdwatch Ireland describe this raptor as a summer visitor to uplands throughout Ireland and a widespread winter visitor at lowland sites from October to April. Diet is small birds, such as Meadow Pipits and Skylarks. The bird rarely breeds in Ireland, with nests on the ground of moorland, mountain and blanket bog. It also nests in woodland and forestry plantations adjacent to moorland.
- 8.5.38. The NPWS Site Synopsis refers to the extensive bog and heath habitat within the SPA providing excellent foraging habitat for Merlin, then estimated to be 6-10 pairs (2010). It also states that the bird nests in heath or in old crows' nests in trees.
- 8.5.39. The DTCAGSM observation (6th April 2021) raises concerns regarding the risks to the Merlin population. It notes the bird surveys (2/12/2020) recorded a Merlin foraging within the existing site and over the proposed extraction area. It states that the viability of Merlin territories is supported by the availability of suitable nesting habitat and sufficient foraging habitat and it is unclear if the development forms part of Merlin territory or whether the Merlin using the site form part of the population that supports the adjacent SPA. The Department recommend additional survey work to establish the link between the Merlin using the site and the SPA, whether the appeal site forms part of the core breeding territory and/or foraging area for Merlin and the proximity of the site to any nests sites within 7km (i.e. typical Merlin foraging range).
- 8.5.40. The applicant's Addendum NIS, based on survey work carried out in April, May and June 2021 (methodology was checked with NPWS):
- Refers to presence of 2 breeding pairs of Merlin in the SPA in the 2018 IRSG and BWI Merlin Study.
 - Refers to the typical foraging range of Merlin of 7km and the presence of three small areas of isolated portions of the SPA, within this distance of the site (map 3.1 and 3.2).

- Reports on the presence/activity of Merlin in defined sections of the site (Tables 4.1-4.3 and Figures 4.1 to 4.4). This includes with the majority of activity confined to elevated perches within the southern boundary of the site (e.g. the rock outcrops shown in photograph 6.5).
- Concludes that there was (a) no evidence of Merlin nesting within the site but possibility of this in the forestry to the south of the site, and (b) evidence of foraging on the periphery of the site (extraction area).
- States that on completion of the dedicated Merlin surveys it was evident that the subject site and surrounding area do form part of Merlin territory. Without ringing or GPS trackers it is not possible to definitively state that the birds do or do not utilise the Derryveagh and Mountains SPA (small areas of the SPA within 7km of the appeal site) or if they are part of the population previously documented as being supported by the SPA. However, evidence suggests that the Merlin pair nesting within the conifer plantation are not included within the observed SPA population. Information was not available to the applicant on the location of the pairs known within the SPA and therefore it was not possible to determine if the territory of the documented pair could overlap with the SPA. However, the abundance of foraging opportunities within the immediate environs of the suspected nesting site and the inclusion of coastline within their range, suggests that they are not likely to need to venture as far as the main area of the SPA in order to forage.
- Concludes that (a) there would be no loss of nesting habitat as a consequence of the development (conifer woodland to remain intact), (b) loss of 3.0ha foraging heath habitat is inconsequential in context of the significant area of heath within 7km of the site (c.5,500ha of wet or dry heath, see Figure 7.1), (c) there would be no greater risk of injury or collision as there is no new machinery or infrastructure and (d) no additional risk of disturbance due to noise (no change in activities/equipment/blasting regime, short term use of excavators to remove topsoil).
- Notwithstanding the above, the following mitigation measures are proposed:
 - Retention of rocky heights in section 6 of site/photograph 5 for continued use by birds.

- Erection of artificial perches, to preserve elevated perching opportunities and offset removal of existing post and wire fencing.
- Erection of nest boxes around the site to support bird species, in particular the prey of Merlin species, while trees (to be planted) mature.
- Fitting of tall equipment with reflectors to avoid collisions.
- Outdoor lighting to be hooded, face downward, limited to 10 watts max and utilise motion sensors to reduce impacts on nocturnal animals.
- Continued prior notification of blasting to NPWS rangers and adherence to any additional measures suggested by NPWS.
- Advance onsite vantage point survey in advance of blasts. Avoidance of blasting if nesting observed on site.
- Minimum of 125m between blast point and nesting site.
- Monitoring of operational works during bird breeding season by qualified ecologist to ensure all mitigation measures are adhered to and conservation interests are effectively protected and usage of artificial perches.

8.5.41. The Addendum NIS concludes that provided all mitigation measures are implemented, there is no significant negative impact foreseen for Merlin as a result of the proposed development.

8.5.42. Subsequent to the Addendum NIS, the NPWS welcomes the additional data and the proposed mitigation measures. It states that the NPWS has no post consent role and recommends that the PA condition the permission to (a) restrict blasting to the period outside the bird nesting season (i.e. it excludes the period April to June inclusive), to avoid disturbance effects to the adjacent Merlin nest and/or nesting Red Throated Diver in nearby Lake Habitat within the adjacent Derryveagh and Glendowan Mountains SPA, and (b) provision of compensatory habitat to minimise effects to Annex II species ex-situ of the Natura 2000 network and to ensure no net loss of biodiversity associated with the new development.

8.5.43. In their second AA report the PA consider that subject to implementation of all mitigation measures there is no potential for effects on the conservation interests of the SPA. The Planning Report states that they are satisfied that the development will not result in any significant habitat loss associated with the Derryveagh Mountains and Glendowan SPA. It further states that any discussion in respect of

securing and managing lands for habitat are between the applicant and the NPWS outside the application process.

- 8.5.44. Having regard to the foregoing, notably the data from additional bird surveys, I am satisfied that the appeal site forms part of the territory for Merlin in the area of the site. However, it would appear that it is highly unlikely that the site itself is used for nesting given the territorial nature of the species and the presence of a nest likely in the plantation to the south of the site. It is also evident from the Merlin surveys that the appeal site is used for foraging.
- 8.5.45. The appeal site is situated >7km from the main designated area of the Derryveagh Mountains and Glendowan SPA. However, three small pockets fall within 7km of the site (see Maps 3.1 and 3.2 Addendum NIS). Whilst I would also accept that it is possible that the appeal site may be used by Merlin occurring within the SPA, given the expanse of alternative territory that is available (Maps 2.1 and 2.3), the loss of territory (alone or in combination with the existing processing site and worked quarry) is highly unlikely to be significant.
- 8.5.46. The consequences of the development are therefore most likely to be confined to the more immediate area of the site, with the loss of territory in the vicinity of the likely nest to the south of the site, and the relocation of activity within the site to the south of the expired extraction area and east of the processing area i.e. towards the plantation in which the birds are nesting.
- 8.5.47. Again, for the reasons stated in the NIS, the loss of territory, is not of itself likely to be significant due to the extent of alternative heath in the wider area, including within 7km of the likely nest site. Further, Merlin are likely to be habituated to existing operational noise and are unlikely to be adversely affected by a shift in operations to the south east (i.e. the birds already hunt in close proximity to the active quarry site). Within this context I consider that the proposed arrangements for mitigating impacts, including that blasting take place outside of the nesting season, are appropriate and will prevent any significant impacts on the species, including the nesting pair to the south of the site.
- 8.5.48. The Department recommended that the provision of compensatory habitat to ensure national biodiversity and Annex II species protection objectives are met. The PA has indicated that any discussion in respect of securing and managing lands for habitat are between the applicant and the NPWS outside the application process. I am also

mindful of the difficulties presented in the management of land that falls outside of the planning unit associated with the application/appeal. However, I am satisfied that with the implementation of the full set of mitigation measures proposed in the application, including the restoration of the quarry to beneficial ecological after use that there will be no significant effects on this species of conservation interest.

- 8.5.49. Peregrine Falcon. Birdwatch Ireland state that this bird of prey is a widespread resident throughout Ireland. The diet is mainly birds, usually taken in air and sometimes on the ground or on water. The Falcon breeds on coastal and inland cliffs. The bird winters in Ireland but shows some movement away from breeding areas in winter. It can be found on the coast, especially on estuaries where they hunt on concentrations of water birds.
- 8.5.50. The Site Synopsis refers to the extensive bog and heath habitat providing excellent foraging habitat for Peregrine Falcon, with 5-6 pairs identified in 2002 and the species nesting on crags and cliffs.
- 8.5.51. The NIS, under principal supporting habitat, also refers to cliff ledges, crags and sea cliffs as nesting habitats for the species as well as quarry faces and more recently man-made constructions (e.g. tall buildings). It also refers to the presence of five occupied nest sites in 2017 within 0-20km of the site (3 occupied nests, 0-5km; 1 occupied nest 5-10km; 1 occupied nest site 10-15km, page 53, NIS) based on NPWS data. The bird observation report identified no Peregrine Falcon on/near the site (appendix VI, NIS). The NIS does not foresee any significant negative impact on this species as there it will have no impact on prey species or increase in human activity.
- 8.5.52. Having regard to the modest land take associated with the appeals site, alone and in conjunction with the existing processing area and worked quarry, and the absence of other large scale activities in the area of the site, its location removed from mountain cliffs likely associated with inland nesting habitats for the species and the extensive foraging area for the species in the area of the site, it is unlikely that the proposed development will have an adverse effect on the species.
- 8.5.53. Golden Plover. Birdwatch Ireland describe this bird as a summer visitor from France and Iberia (although it acknowledges that some may remain all year round) and a winter visitor from Iceland, with most birds in Ireland between October and February. Golden Plover feed on a variety of soil and surface-living invertebrates, principally

beetles and earthworms, but also on plant material such as berries, seeds and grasses. They regularly feed in association with Lapwing & Black-headed Gulls. The birds breed in heather moors, blanket bog and grasslands, with distribution of the species limited to the uplands of northwest counties of Ireland. The North West is identified as a location in which the birds breed. Throughout the winter Golden Plovers are regularly found in large, densely packed flocks in a variety of habitats both coastal and inland, with widespread distribution in Ireland.

8.5.54. The NPWS Site Synopsis states that the Derryveagh and Glendowan Mountains SPA is very important for breeding Golden Plover, with 18 pairs recorded in 2002.

8.5.55. The bird observation report identified no Golden Plover on/near the site (appendix VI NIS). However, the NIS states that the site may offer suitable foraging habitat for the species and it identifies the main threats to the species include habitat loss, human disturbance and mining and quarrying. The NIS considers that it is unlikely that the development will have a significant impact on this species or its surrounding habitat but should be considered in construction works, although no explanations for the conclusions are given.

8.5.56. The Derryveagh and Glendowan Mountains SPA is an extensive site, with the majority of the site situated >7km to the south west of the appeal site. The proposed development, with the existing processing area and worked quarry, comprises a very modest land take from a location outside of the SPA which is already affected by noise from the existing quarry operation. Having regard to this, the absence of any species evident in the area of the site and absence of concerns raised by statutory bodies in respect of the species, I am satisfied therefore that the proposed development is not likely to have an adverse effect on this species of conservation interest.

8.5.57. Dunlin.

8.5.58. Birdwatch Ireland refer to this bird as a summer visitor to Ireland from NW Africa/SW Europe, a winter visitor from Scandinavia to Siberia and a passage migrant from Greenland (heading south to winter in Africa). Most birds occur during the mid-winter period. Dunlin feed predominantly on small invertebrates of estuarine mudflats, particularly polychaete worms and small gastropods. They feed in flocks, in the muddier sections of the estuaries and close to the tide edge. The species nests on the ground in sparse, low vegetation, in Ireland favouring machair habitats, and

winters along all coastal areas, especially on tidal mudflats and estuaries (very few in Ireland).

- 8.5.59. The NPWS Site Synopsis states that the Derryveagh and Glendowan Mountains SPA is very important for breeding Dunlin, with 5 pairs recorded in 2002.
- 8.5.60. The NIS acknowledges the importance of the site for breeding Dunlin. However, the bird observation report identified none of the birds on/near the site (appendix VI NIS). The NIS report refers to the principle supporting habitat as intertidal mud and sand flats and the main threats to Dunlin as including damage or pollution to supporting habitats caused by agricultural practices, coastal development and associated recreational activities. Pressures and threats also include mining and quarrying. Whilst the NIS considers that impacts on the bird or its surrounding habitat are very unlikely, given the threat posed by quarrying, it considers that the species must be considered in the proposed works.
- 8.5.61. As stated, the Derryveagh and Glendowan Mountains SPA is an extensive site and the extension area comprises a very modest land take outside of the SPA (of itself and with the existing quarry operation and worked quarry) and one which is already associated with noise and human activity. Further, the habitats on site are not consistent with the preferred feeding or nesting sites of the species and no species have been observed on or near the site. Having regard to the foregoing and the absence of any concerns raised by statutory bodies, I am satisfied that the proposed development is not likely to have an adverse effect on this species of conservation interest.
- 8.5.62. Integrity Test. Following the appropriate assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of Derryveagh and Glendowan Mountains SPA in view of the Conservation Objectives of this site. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.
- 8.5.63. **Appropriate Assessment Conclusion**
- 8.5.64. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000 as amended.

8.5.65. Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on three European sites, Sheephaven Bay SAC (001190), Muckish Mountain SAC (001179), and Derryveagh and Glendowan Mountains SPA (004039). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the sites, in light of their conservation objectives.

8.5.66. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of these European site or any other European site, in view of their Conservation Objectives. This conclusion is based on a full and detailed assessment of all aspects of the proposed development including mitigation measures and monitoring in respect of environmental effects and there is no reasonable doubt as to the absence of adverse effects.

9.0 Recommendation

9.1. I recommend that the Board grant permission subject to conditions.

10.0 Conditions

1.	<p>The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted on the 16th day of September 2021, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.</p> <p>Reason: In the interest of clarity.</p>
2.	<p>The grant of permission shall be for a period of 20 years from the date of this Order. At the end of this period, the quarry use shall then cease and all related structures removed and remedial works including restoration works, in accordance with the general principles set out in the application,</p>

	<p>shall be carried out, unless, before the end of that period, planning permission shall have been granted for the continuance of quarrying for a further period. The site restoration works described in the application shall be completed within two years of the cessation of quarrying on the site.</p> <p>Reason: In the interest of visual amenity.</p>
3.	<p>No more than 75,000 tonnes of quarried material shall be extracted from the subject quarry within any one year from the indicated extraction area (Site Layout, Drawing No. 09). Extraction depth from the area indicated in Site Section, Drawing No. 12, shall not exceed 53mOD.</p> <p>Prior to the commencement of development details of a benched profile to the quarry edge shall be submitted to the planning authority for written agreement. This shall be integrated with the plans for the restoration of the site to ecological after uses.</p> <p>Reason: In the interest of clarity and having regard to the fact that this extraction rate was used for the analysis set out in the submitted Environmental Impact Assessment Report and Natura Impact Statement submitted with the application.</p>
4.	<p>Prior to the commencement of development, the following details shall be submitted to the planning authority for written agreement:</p> <ul style="list-style-type: none"> i. Detailed arrangements for the management of surface water discharges from the site during flood/storm conditions. ii. Detailed arrangements and timescale for the provision of a 4m berm around the extraction area. iii. Detailed arrangements for the landscaping of the site during operation to include detailed arrangements for planting of the perimeter berm to facilitate re-use of heath vegetation, additional tree planting and wildflower mix, management of the berm over its lifetime and in the final restoration of the quarry. <p>Arrangements for planting and management of berm shall be integrated with ecological mitigation measures.</p>

	<p>iv. Detailed arrangements for the restoration of the site for beneficial ecological after uses and the arrangements to transition the site from an active quarry to the restored after uses.</p> <p>v. The applicant shall consult with the NPWS in the preparation of these details.</p> <p>Reason: In the interest of environmental protection and biodiversity.</p>
6.	<p>Prior to the commencement of development, the applicant shall submit to the planning authority for written agreement:</p> <p>(a) A single Schedule of Monitoring and Mitigation Measures as outlined in the Environmental Impact Assessment Report, the Natura Impact Statement, Addendum NIS and associated documents submitted with this application.</p> <p>(b) The document shall include arrangements for the monitoring of bird activity on the site, with arrangements to be agreed with the NPWS and details of monitoring submitted to NPWS.</p> <p>(c) These measures shall be carried out in full, except where otherwise required by conditions attached to this permission.</p> <p>(d) The Schedule shall be included in an Environmental Management System (EMS) and a Site Specific Environmental Monitoring Plan (EMP).</p> <p>(e) The EMS and EMP shall be integrated with the discharge licence for the facility (LWat83 and any subsequent amendment to or new licence in respect of the site).</p> <p>(f) The development shall be operated and managed in accordance with the agreed EMS required under (a) above.</p> <p>Reason: In the interest of protecting the environment and the residential amenities of property in the vicinity and in the interest of public health</p>
8.	<p>a) The developer shall monitor and record surface water discharge (quantity and quality), noise, ground vibration, and dust deposition levels at monitoring and recording stations, the location of which shall be agreed in writing with the planning authority prior to</p>

	<p>commencement of development. Monitoring results shall be submitted to the planning authority at agreed intervals.</p> <p>b) On an annual basis, for the lifetime of the facility (within two months of each year end), the developer shall submit to the planning authority five copies of an environmental audit. Independent environmental auditors approved of in writing by the planning authority shall carry out this audit. This audit shall be carried out at the expense of the developer and shall be made available for public inspection at the offices of the planning authority and at such other locations as may be agreed in writing with the authority. This report shall contain:</p> <p>i. Details of environmental monitoring in respect of water, noise, vibration and dust.</p> <p>ii. An annual topographical survey of the site carried out by an independent qualified surveyor approved in writing by the planning authority.</p> <p>iii. A written record of all complaints, including actions taken in response to each complaint.</p> <p>c) All incidents where levels of noise, dust or vibration exceed the levels specified in this permission shall be notified to the planning authority within two working days.</p> <p>d) Following submission of the audit or of such reports, or where such incidents occur, the developer shall comply with any requirements that the planning authority may impose in writing in order to bring the development in compliance with the conditions of this permission to further develop the quarry.</p> <p>Reason: In the interest of protecting residential amenities and ensuring a sustainable use of non-renewable resources.</p>
9.	<p>The quarry, and all activities occurring therein, shall only operate between 0700 hours and 1800 hours, Monday to Friday and between 0800 hours and 1600 hours on Saturdays. No activity (e.g. loading, movement of</p>

	<p>machinery or material etc.) shall take place outside these hours or on Sundays or public holidays.</p> <p>Reason: In order to protect the amenities of property in the vicinity.</p>
10.	<p>No blasting shall take place during the bird breeding season, April to June of each year (inclusive).</p> <p>Reason: In the interest of biodiversity.</p>
11.	<p>(a) Details of all blasting, including blast design and implementation, shall be agreed in writing one month prior to the carrying out of blasting.</p> <p>(b) Blasting operations shall take place only between 1200 hours and 1600 hours, Monday to Friday, and shall not take place on Saturdays, Sundays or public holidays. Blasting shall not be carried out any more frequently than once per month (excluding the months of April to June, inclusive), unless by prior written agreement of the Planning Authority.</p> <p>(c) Monitoring of the noise and vibration arising from blasting, at three no. locations, and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.</p> <p>(d) Prior to the firing of any blast, the developer shall give notice of his intention to the occupiers of all dwellings within 500 metres of the site. An audible alarm for a minimum period of one minute shall be sounded. This alarm shall be of sufficient power to be heard at all such dwellings.</p> <p>Reason: In the interest of public safety and residential amenity.</p>
12.	<p>Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95%</p>

	<p>confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).</p> <p>Reason: To protect the residential amenity of property in the vicinity.</p>
13.	<p>During the operational phase of the proposed development, the noise level from within the boundaries of the site measured at noise sensitive locations in the vicinity, shall not exceed:</p> <ul style="list-style-type: none"> • an LArT value of 55 dB(A) during 0800 and 1800 hours. The T value shall be one hour, and • an LAeqT value of 45 dB(A) at any other time. The T value shall be 5 minutes. <p>Prior to the commencement of development, locations shall be agreed at which noise monitoring shall take place. This shall include at least 3 noise sensitive locations and baseline/ambient monitoring in advance of commencement.</p> <p>Reason: In order to protect the amenities of property in the vicinity.</p>
14.	<p>(a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement date and the frequency of monitoring results, and details of all dust suppression measures.</p> <p>(b) The developer shall engage the services of a road sweeper with shall sweep the public road on a twice daily basis or as necessary to ensure compliance with (a) above and for a distance of 70m on either side of the site entrances.</p> <p>Reason: To control dust emissions arising from the development and in the interest of the amenity of the area.</p>
15.	<p>Prior to the commencement of development a stock proof fence shall be erected around the perimeter of the entire site. Fencing shall be planned and implemented in consultation with NPWS.</p>

	Reason: In the interest of public safety and biodiversity.
16.	<p>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 -</p> <p>(a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,</p> <p>(b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and</p> <p>(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.</p> <p>In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.</p> <p>Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.</p>
17.	<p>All Heavy Goods Vehicles departing the site (quarry void and processing area) shall do so via a wheel-washes adjacent to the public road, details of which shall be submitted to and agreed in writing with the planning authority in advance of commencement. Signs shall be erected indicating this requirement. All vehicles used for carrying materials from the site shall be fitted with tailboards or similar devices to prevent spillages onto the public road.</p> <p>Reason: In the interest of ensuring that a clean road surface is maintained and in the interest of traffic safety.</p>
18.	<p>Scrap metal and other waste material shall be removed at least annually from the site in accordance with the written requirements of the planning authority. Such materials shall be deemed to include scrapped trucks, other scrapped vehicles, empty oil barrels, broken or otherwise unusable truck bodies, worn out conveyor belts/chains, worn out batteries, unusable tyres and worn out conveyor/roller shafts.</p>

	Reason: To protect the amenities of the area.
19.	<p>Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or other security to secure the satisfactory restoration of the site, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory completion of any part of the development. 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 An Bord Pleanála for determination.</p> <p>Reason: To ensure the satisfactory restoration of the site in the interest of visual amenity and biodiversity.</p>
20.	<p>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 and Development Act 2000, as amended. The contribution shall be paid prior to re-commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.</p> <p>Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission to further develop the quarry.</p>

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Deirdre MacGabhann

Planning Inspector

19th April 2022