



An
Coimisiún
Pleanála

Inspector's Report

ABP-321022-24

Development	Development of quarry.
Location	Lomaunaghbaun, Tuam, Co. Galway
Planning Authority	Galway County Council
Planning Authority Reg. Ref.	2460013
Applicant(s)	Newtown Farming Ltd
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	Third Party
Appellant(s)	Peter Sweetnam
Observer(s)	(1) An Taisce (2) Sabrina Joyce Kemper
Date of Site Inspection	20 th May 2026
Inspector	Colin McBride

Contents

1.0 Site Location and Description	4
2.0 Proposed Development	5
3.0 Planning Authority Decision	7
3.1. Decision	7
3.2. Planning Authority Reports	8
3.3. Prescribed Bodies	9
3.4. Third Party Observations to the Planning Authority	10
4.0 Planning History.....	10
5.0 Policy Context.....	11
6.0 European and National Natural Heritage Designations	22
7.0 The Appeal	23
7.1. Grounds of Appeal	23
7.2. Planning Authority Response	24
7.3. Observations.....	24
7.4. Prescribed Bodies	25
7.5. Applicants' Response	25
7.6. Further Response by An Taisce.....	27
8.0 Assessment.....	28
9.0 Appropriate Assessment.....	35
10.0 Environmental Impact Assessment	38
11.0 Recommendation	103
12.0 Reasons and Considerations.....	103

Appendix 1 – AA Screening Determination

Appendix 2 – Stage 2 - Appropriate Assessment

1.0 Site Location and Description

- 1.1. The appeal site, which has a stated area of 6.2 hectares, is located on the western side of the L2232 (Local Road) in the townland of Lomaunaghbaun c.7km south of the town of Dunmore and c.10km northeast of Tuam. The site is made up of seven fields currently in agricultural use (grassland), which are currently defined by existing stonewalls and hedgerows. The topography of the site is undulating with the site level with the public road to the east of the site and rising to a peak centrally before falling in level towards the western end of the site. Adjoining lands are generally level in topography and similar in nature (agricultural grassland). The site has an existing agricultural entrance off the L2232. There is an existing quarrying activity located c. 750m to the west of the site. The area is a sparsely populated area with the nearest residential property is located 190m to the northeast of the site (in the ownership of the applicant). The next nearest dwellings are six habitable dwellings within 500m of the site with two more dwellings just outside a 500m radius of the site.
- 1.2. The public road (the L2232) is approximately 4m wide and runs along the eastern side of the site. The L2232 joins the R328 approximately 4km to the north of the site at Gorteen Cross. The R328 can also be accessed from the site by travelling south for 1.5km on the L2232 to a point where it joins the L2223 and then eastwards for 5km to a junction with the R328 to the southeast of the site.
- 1.3. There are two existing sand and gravel quarries located approximately 1km to the southwest of the site (located adjacent each other). The Clonberne windfarm (11 turbines under ref no. PA07.320089) is proposed on a site to the east of the application site. It is proposed to provide a borrow pit on a site to the east on the opposite side of the road as part of the proposed windfarm development.
- 1.4. The development site is mapped by the GSI as being within the Gallagher Group Water Scheme source protection area. The nearest waterbody to the site is the Levally Stream which is located approximately 0.7km to the east of the site and flows in a southerly direction to the Grange River. The nearest site with any natural heritage designation is the Drumbulcaun Bog pNHA (000263) located approximately 0.6km to the west, which is a small complex of raised bog, fen, open water and flooded grassland.

2.0 Proposed Development

2.1 Permission is sought for the development of a quarry for the extraction of sand in a phased basis (three phases) over an area of c. 6.2 hectares by an average depth of 3m from existing ground levels. The development will consist of:

- (i) Installation of a processing plant and associated components;
- (ii) Stockpiling of topsoil removed during quarrying for future implementation of a restoration plan;
- (iii) Construction of a refuelling area;
- (iv) Installation of a site office (30sqm);
- (v) Installation of a wastewater holding tank (63.6sqm);
- (vi) Installation of a weighbridge and wheel wash;
- (vii) Installation of new site entrance along with road reprofiling works on the L2232;
- (viii) Installation of groundwater well;
- (ix) Provision of drainage infrastructure including a new hydrocarbon interceptor and surface drains on hardstanding;
- (x) All associated site development and operational works; and
- (xi) Site restoration following cessation of sand extraction works.

Permission is sought for an operational lifetime of 10 years. The Planning Application is accompanied by an Environmental Impact Assessment Report and a Natura Impact Statement.

The proposal will entail provision of a new entrance with the entrance to the site relocated 30m to the north of existing position. The local road is to be lowered either side of the new entrance to ensure forward visibility of 90m. The existing road is to be lowered by a maximum of 600mm to lower an existing hump in the road and will result in a new road pavement being placed on existing subgrade material.

The processing plant, site office, weighbridge, wheel wash are located to the southeast of the site within Phase 1. The enabling works will entail soil and overburn

being removed. It is estimated that the level of material will be 6,250m³ over the entire site and the three phases and which be used to construct berms (two berms during Phase 1, one each to the east (roadside) and west of the Phase 1 area, one in Phase 2 located along the northern boundary and part of the eastern (roadside) boundary and one berm during Phase 3 located along the northern boundary. Once operation is ceased the berms will be removed and the material they are made up of levelled on site as part of the restoration. The proposal entails the loss of all internal hedgerow boundaries with retention of all hedgerow along the external site boundaries, to the north, south, east and west apart from a section of hedgerow along the eastern boundary to facilitate the new vehicular entrance.

Sand extraction will be carried out in 3 phases.

Phase 1: Extraction to an average depth of 2.8m and will allow for the extraction of circa 47,000m³ of material.

Phase 2: Extraction to an average excavation depth of 3.3m and will allow for the extraction of circa 53,000m³ of material.

Phase 3: Extraction to an average excavation depth of 1.7m and will allow for the extraction of circa 52,000m³ of material.

No extraction is proposed below the level of the water table on site.

Sand excavated on site will be washed within the processing plant with excavated material fed into a feed hopper then travel along a conveyor belt to a screen box. Material smaller than 3mm will be washed down the screen box to a sand dewatering unit with water separated from the sand by means of centrifuge. Material larger than 3mm will be screened out and transported via conveyor belt to a crusher unit, which will reduce the material to the appropriate size prior to being reintroduced to the screen box and sand dewatering unit. Clean washed sand will pass through an outlet chute for storage (stockpile area adjacent processing plant) and sale with separated water to flow to a settlement tank for further treatment.

Water usage for the washing element of the sand processing plant during operation will be a closed loop with all water used for washing to be recycled back through the

plant and used on a continuous basis. Initially water will be extracted from the proposed on-site groundwater well and pumped to the recycled water holding tank with extraction rates from groundwater not to exceed 25m³ per day.

Water used for the wheel wash and dust suppression will be sourced from the proposed recycled water holding tank with wastewater from the wheel wash flowing to a fuel/oil interceptor before flowing back to the recycled water holding tank.

Sanitary wastewater is to be directed to a storage receptacle built into the staff welfare facility and such is to be emptied on a regular basis by an appropriately licensed waste disposal company.

Site restoration after cessation of operation will entail removal of all site infrastructure including the processing plant, wheel wash, weighbridge and site office. The Phase 1 area will be the last to be restored with the Phase 2 and 3 areas to be restored once all material has been extracted. Restoration/reinstatement will entail levelling of extracted topsoil and overburden (used for berms on site) and replanting of hedgerows as per the existing layout of hedgerows on site with some additional planting also proposed. The site will be reseeded and subject to grassland management and will result in the reestablishment of dry calcareous grassland in addition to the 5.5ha of managed grassland off-site during operation.

3.0 Planning Authority Decision

3.1. Decision

Permission granted subject to 18 conditions. Of note is the following conditions.

Condition no. 3: 10-year permission.

Condition no. 4: Environmental mitigation measures and monitoring with the NIS and EIAR to be implemented and an Environmental Manager to be appointed to ensure such.

Condition no. 5: Archaeological testing.

Condition no. 6: Details of monitoring programme for noise and dust to be submitted and agreed, emission limit values prescribed for noise and dust emissions.

Condition no. 7: Dust emission limit value prescribed.

Condition no. 8: Road safety audit (stage 2) prior to commencement of development).

Condition no. 9: On completion of development a stage 3 road safety audit to be carried out.

Condition no. 12: Revisited detailed Traffic Management Plan to be submitted.

Condition 15: Operating hours specified.

Condition no. 16: Development contribution of €113,410.40.

Condition no. 17: Bond of €100,00 to secure restoration.

Condition no. 18: Bond of €33,525 to secure reinstatement of the public road.

3.2. Planning Authority Reports

3.2.1. Planning Report (01/03/24)

- Further information including an updated site layout map showing the location of all mitigation measures to ensure no adverse effect on Natura 2000 sites, submission of site characterisation assessment of the site including a longitudinal section through the site and proposed wastewater treatment system, submit details of water supply, submit revised detailed design elements impacting the public road, submission of a road safety audit, structural design details of all culverts to be traversed by HGV's, details of haul route pavement test and submission of a SuDS assessment for the proposed development.

Planning Report (12/09/24):

- The information submitted in response to further information and the proposed development was considered to be satisfactory in the context of the proper planning and sustainable development of the area. The proposed development was considered to be in accordance with the policies and objectives of the Galway County Council Development Plan 2022-2028 and to be in accordance with the proper planning and sustainable development of

the area. A grant of permission was recommended subject to the conditions outlined above.

3.2.2. Other Technical Reports

Urban Roads & Transportation Dept (No date)

- Submit details of water supply, submit revised detailed design elements impacting the public road, submission of a road safety audit, structural design details of all culverts to be traversed by HGV's, details of haul route pavement test and submission of a SuDS assessment for the proposed development

Environment Section (28/02/24)

- If permission granted conditions should be applied in relation to dust and noise emission limit values as per the DHELG and EPA guidelines, a condition that the public roadway shall be kept clean from debris at all times, an Environmental Management Plan to be put in place.

3.3. Prescribed Bodies

Geological Survey Ireland (12/02/24):

There are no County Geological Sites (CGS) within the extraction area but there is a CGS within 3km in the form of the Levally Lough (Site Code GY089). It is noted there is no envisaged impacts on the integrity of the CSG.

The GSI would request that the operator might assist their geological heritage goals with the following (and ideally this would be written into the restoration / closure plan) and be included as a condition of planning as deemed appropriate by the planning authority:

1. Allowing access to quarry faces by appropriate scientists (upon request and with due regards to Health and Safety requirements) during quarrying to check for interesting new strategies / relationships as they might become exposed and to establish if the quarry site is worthy of recognition post extraction and through aftercare/restoration planning.

2. If deemed appropriate in (1) above, leaving a representative section of the quarry face at the end of the quarry life or inclusion of information panels to promote the geology to the public or develop tourism or educational resources if appropriate depending on the future use of the site. Natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. The Groundwater Data Viewer indicates an aquifer classed as a 'Regionally Important Aquifer - Karstified (conduit)' underlies the proposed development. The Groundwater Vulnerability map indicates the area covered is classed as 'Moderate' to 'High' Vulnerability.

The proposed sand extraction is in the Gallagher Group Water Scheme (GWS) source protection area. Given the nearby drinking water sources (Group Water Scheme), the effects of any potential contamination as a result of the sand extraction would need to be assessed.

3.4. Third Party Observations to the Planning Authority

2 submissions. The issues raised can be summarised as follows.

- Assessment must accord with the Planning and Development Act, 2000 (as amended), the PA's obligations with regard to EIAR and the Habitat Directive is highlighted. The development must comply with the Water Framework Directive.

4.0 Planning History

No planning history on the application site.

Applications in the vicinity

PA07.320089: Permission sought for a wind farm comprising of 11 Wind Turbines and associated infrastructure at the townlands of Killavoher, Gortagarraun, Cloonarkan, Lomaunaghroe, Clonberg, Ballagh West, Carrowntryla & Lissybroder, Co Galway. This application is pending decision and is located to the west of the appeal site. A borrow pit to serve this development is proposed on a site on the opposite side of the public road (L2232) as part of this application (physically separate from the main body of the application site) with the nearest turbine proposed 1.4km from the appeal site.

10/848: Permission refused for a change of extraction method of the quarry from digging to controlled blasting. This application relates to an existing quarry located to the southwest of the appeal site. Refused 20/10/20.

06/1788: Permission granted for a gravel and sand extraction operation together with ancillary site works and services including new site entrance and the future re-instatement of the site to farmland for grazing. This was granted on a site of 3.512 hecatres on the opposite side of the road (east) to the appeal site. This site appears to have been excavated and does not appear to be active. This site is now proposed as a borrow pit for the Clonberne windfarm proposal subject to application ref no. PA07.320089. Granted 11/01/07.

5.0 Policy Context

5.1 Development Plan

The relevant Development Plan is the Galway County development Plan 2022-2028.

Under the Core Strategy there is housing target for the provision of 10,738 residential units for the period of the Development Plan (Core Strategy Table 2.11).

MEQ 1 Aggregate Resources

Ensure adequate supplies of aggregate resources to meet future growth needs within County Galway and the wider region and to facilitate the exploitation of such resources where there is a proven need and market opportunity for such minerals or aggregates and ensure that this exploitation of resources does not adversely affect the environment or adjoining existing land uses.

MEQ 2 Protection of the Environment

The Planning Authority shall require the following in relation to the management of authorised aggregate extraction -

- (a) All quarries shall comply with the requirements of the *EU Habitats Directive*, the *Planning and Development (Amendment) Act 2010* and by the guidance as contained within the DoEHLG *Quarries and Ancillary Facilities Guidelines 2004*, the EPA Guidelines '*Environmental Management in the Extractive Industry: Non Scheduled Minerals 2006* (including any updated/superseding documents) and to DM Standard 19 of this Development Plan;
- (b) Require development proposals on or in the proximity of quarry sites, to carry out appropriate investigations into the nature and extent of old quarries (where applicable). Such proposals shall also investigate the nature and extent of soil and groundwater contamination and the risks associated with site development works together with appropriate mitigation;
- (c) Require Development Proposals to assess the potential impact of extraction in areas where geo-morphological interest, groundwater and important aquifers, important archaeological features and Natural Heritage Areas are located;
- d) Have regard to the *Landscape Character Assessment of the County* and its recommendations;
- (e) Ensure that any quarry activity has minimal adverse impact on the road network and that the full cost of road improvements, including during operations and at time of closure, which are necessary to facilitate those industries are borne by the industry itself.
- (f) Ensure that the extraction of minerals or aggregates does not adversely impact on residential or environmental amenity;
- (g) Protect all known un-worked deposits from development that might limit their scope for extraction.

MEQ 3 Sustainable Management of Exhausted Quarries

Encourage the use of quarries and pits for sustainable management of post recovery stage construction and demolition waste, as an alternative to using agricultural land, subject to normal planning and environmental considerations.

MEQ 4 Landscaping Plans

Ensure that all extractions shall be subjected to landscaping requirements and that worked out quarries should be rehabilitated to a use agreed with the Planning Authority which could include recreational, biodiversity, amenity or other end-of-life uses. The use of these rehabilitated sites shall be limited to inert waste and sites shall be authorised under the appropriate waste regulations.

NR 3 Traffic and Transport Assessment (TTA) and Road Safety Audit (RSA)

Require all applications for significant development proposals which have the potential to impact on the National Road Network to be accompanied by a Traffic and Transport Assessment (TTA) and Road Safety Audit (RSA), carried out by suitably competent persons, in accordance with the TII's Traffic and Transport Assessment Guidelines and TII Publications (Standard) GE-STY-01024 (Road Safety Audit) respectively.

AQ 1 Ambient Air Quality

To promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as set out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).

AQ 2 Assessment of Air Quality

To require developments which would have the potential to have adverse impacts on air quality to carry out assessments of the impact of the development on air quality.

AQ 3 Air Quality Mitigation Measures

To require the use of appropriate mitigation measures such as dust dampeners to minimise the potential impacts of developments on air quality.

NP3 Noise Impact Assessments

To require an assessment of impact of the development on noise levels, having regard to the provisions of the Environmental Protection Agency Acts 1992 and 2003 and the EPA Noise Regulations 1994 when assessing planning application.

NP 4 Noise Pollution and Regulation

Restrict development proposals causing noise pollution in excess of best practice standards and regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the EPA.

NP 5 Noise Mitigation Measures

Require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may be required where appropriate.

NHB 1 Natural Heritage and Biodiversity of Designated Sites, Habitats and Species

Protect and where possible enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts) and extend to any additions or alterations to sites that may occur during the lifetime of this plan.

Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds

and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI 94 of 1999).

Support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas, proposed Natural Heritage Areas, Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries (and other designated sites including any future designations) and the promotion of the development of a green/ ecological network.

NHB 2 European Sites and Appropriate Assessment

To implement Article 6 of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s). All assessments must be in compliance with the European Communities (Birds and Natural Habitats) Regulations 2011. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant.

NHB 3 Protection of European Sites

No plans, programmes, or projects etc. giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.*

NHB 7 Mitigation Measures

Require mitigating measures in certain cases where it is evident that biodiversity is likely to be affected. These measures may, in association with other specified requirements, include establishment of wildlife areas/corridors/parks, hedgerow, tree planting, wildflower meadows/marshes and other areas. With regard to residential

development, in certain cases, these measures may be carried out in conjunction with the provision of open space and/or play areas.

WR 1 Water Resources

Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans.

WS 2 Protection of Water Supplies

Collaborate with Irish Water and the Group Water Federation Scheme to protect, conserve and enhance all existing and potential water resources in the County to ensure compliance with the European Union (Drinking Water) Regulations 2014 (as amended) and compliance of water supplies with the parameters identified in these Regulations.

WS 7 Water Quality

Require that new development proposals would ensure that there would not be an unacceptable impact on water quality and quantity including surface water, ground water, designated source protection areas, river corridors and associated wetlands.

WTWF 1 Wetland Sites

Protect and conserve the ecological and biodiversity heritage of the wetland sites in the County. Ensure that an appropriate level of assessment is completed in relation to wetland habitats that are subject to proposals which would involve drainage or

reclamation that might destroy, fragment or degrade any wetland in the county. This includes lakes and ponds, turloughs, watercourses, springs and swamps, marshes, fens, heath, peatlands, some woodlands as well as some coastal and marine habitats. Protect Ramsar sites under The Convention on Wetlands of International Importance (especially as Waterfowl Habitat).

P 1 Protection of Peatlands

Ensure that peatland areas which are designated (or proposed for designation) as NHAs, SACs or SPAs are conserved for their ecological, climate regulation, education and culture, archaeological potential including any ancient walkways (Toghers) through bogs.

TWHS 1 Trees, Hedgerows, Natural Boundaries and Stone Walls

Protect and seek to retain important trees, tree clusters and tree boundaries, ancient woodland, natural boundaries including stonewalls, existing hedgerows particularly species rich roadside and townland boundary hedgerows, where possible and replace with a boundary type similar to the existing boundary. Ensure that new development proposals take cognisance of significant trees/tree stands and that all planting schemes developed are suitable for the specific site and use suitable native variety of trees of Irish provenance and hedgerows of native species. Seek Tree Management Plans to ensure that trees are adequately protected during development and incorporated into the design of new developments.

ESK 1 Protection of Eskers Systems

Protect and conserve the landscape, natural heritage and biodiversity value of esker systems in the county. Assess applications for quarrying and other proposed developments with reference to their status or relative importance, for example, amenity, landscape and scientific value in the context of the overall esker system.

ARC 4 Protection of Archaeological Sites

Protect archaeological sites and monuments their settings and visual amenity and archaeological objects and underwater archaeological sites that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are subject of Preservation Orders or have been registered in the Register of Historic Monuments, or that are newly discovered and seek to protect important archaeological landscapes.

DM Standard 19: Extractive Development

“DM Standard 19: Extractive Development

The following details shall be considered central to the determination of any application for planning permission for extractive development:

f) Mitigation

Methods to reduce environmental impact. Details to be submitted to include an assessment of potential impacts on water resources, residential and visual amenity (including noise, dust and vibration impacts), biodiversity and any other relevant considerations together with appropriate proposals for their mitigation.

k) Landscaping and Screening

Landscaping and screening proposals. Details to be submitted to include an indication of existing trees or other screening to be retained or removed and any proposed screening, grassing or planting of trees or shrubs and proposals for their maintenance.”

5.2 **Quarries and Ancillary Activities (2004): Guidelines for Planning Authorities (Diehl).**

These Guidelines were issued to offer guidance to planning authorities and An Coimisiún Pleanála for the quarrying industry through the Development Plan and determining planning applications for planning permission for quarrying and ancillary activities and for the implementation of Section 261 of the Planning and Development Act, 2000.

The guidelines note the economic importance of quarries and the demand for aggregates arising from the needs of the construction industry with reference to house building and infrastructure provision. It is further noted that aggregates can only be worked where they occur and that many pits and quarries tend to be located within 25km of urban areas where most construction takes place.

Section 3.2 notes that extractive industries are associated with many noise-generating activities including the removal of topsoil and overburden, excavation with machinery, drilling and blasting of rock, crushing and screening of aggregates, transport of raw materials and finished products within the site and on public roads. The Guidelines set out a recommended standard of 55dB(A) L_{Ae} (1 h) for daytime noise and 45 dBA L_{Aeq} (1 h) for night-time at the nearest sensitive receptor. The guidelines also note that it may be appropriate to permit higher noise Environmental Limit Values (ELVs) for short-term temporary activities such as construction of screening bunds, etc, where these activities will result in a considerable environmental benefit.

Section 3.3 sets out a number of best practice mitigation measures to prevent dust creation at source; one such measure includes paving road surfaces.

Section 3.6 notes the development plan will indicate areas of high landscape quality, together with proposed geological Natural Heritage Areas, where quarrying will not normally be permitted. While Quaternary landscape features such as eskers and moraines comprise valuable sediments, they also represent non-renewable records of past climate and environmental change and should be afforded some protection.

Section 3.7 notes in relation to traffic impact best practice/possible mitigation measures: Some related mitigation measures (e.g. in relation to noise and dust) have been outlined above. Specific traffic-related measures may include:

- The improvement of sightlines at the site entrance;
- The strengthening/widening of local roads;
- Limiting HGV traffic to specified routes to and from the site;
- Queuing of vehicles with engines running at quarry sites in the early morning can impact on residential amenity, and must be avoided;
- Provision of footpaths/pedestrian refuges as well as passing bays for vehicles on rural roads in the vicinity of the site.

Section 4.9 states that when considering whether a further permission should be granted, the planning authority should have regard (inter alia) to the extent of the remaining mineral resources and the extent of existing capital investment in infrastructure, equipment, etc.

5.3 Supplementary Guidelines for Planning Authorities July 2012 DOEHLG

These guidelines support and clarify the legislative arrangements relating to the control of quarries through the planning system following the enactment of Section 261A of the Planning and Development Act. 2000 and related provisions.

5.4 Environmental Management on Extractive Industry (Non-Scheduled Mineral): Environmental Management Guidelines (EPA)

The guidelines provide a summary of environmental management practices for quarries and ancillary facilities. Key environmental management issues have been identified and addressed.

Chapter 3 Environmental Management Guidelines includes recommended Emission Limit Values (ELV's) for various factors concerning the extractive industry.

Section 3.5 notes that noise and vibration are present in many normal everyday activities. In relation to quarry developments and ancillary activities, it is recommended that noise from the activities on site shall not exceed the following noise ELVs at the nearest noise-sensitive receptor: Daytime: 08:00–20:00 h LAeq (1 h) = 55 dBA Night-time: 20:00–08:00 h LAeq (1 h) = 45 dBA.

5.5 OPR Case Study Paper CSP07 Quarries and the Local Authority Development Plan

In June 2025, the OPR published a case study paper- CSP07 on Quarries and the Local Authority Development Plan. The key findings from the research included a need to revise and update the Ministerial Guidelines for Planning Authorities dating to 2004.

5.6 National Planning Framework First Revision (April 2025)

Chapter 9: Climate Transition and our Environment

Section 9.2: Resource Efficiency and Transition to a Neutral Carbon Environment

Aggregates and Minerals

“Aggregates and minerals extraction will continue to be enabled where this is compatible with the protection of the environment in terms of noise, air and water quality, natural and cultural heritage, the quality of life of residents in the vicinity, and provides for appropriate site rehabilitation particularly with respect to opportunities that may be provided for enhancement or restoration of nature in line with EU policies, such as the Nature Restoration Law, the EU Green Deal and EU Biodiversity Strategy 2020, and legislative instruments”.

National Policy Objective 30: Facilitate the development of the rural economy, in a manner consistent with the national climate objective, through supporting a sustainable and economically efficient agricultural and food sector, together with forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting biodiversity and the natural landscape and built heritage which are vital to rural tourism.

National Policy Objective 42: To target the delivery of housing to accommodate approximately 50,000 additional homes per annum to 2040.

5.7 Climate Action and Low Carbon Development Act 2015, as amended

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade.

Section 15(1) of the 2015 Act (as substituted by section 17 of the Climate Action and Low Carbon Development (Amendment) Act 2021 (the “2021 Act”)) provides that:

“A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

(a) the most recent approved climate action plan,

- (b) the most recent approved national long term climate action strategy,
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
- (d) the furtherance of the national climate objective, and
- (e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.”

5.8 **Climate Action Plan 2024 (CAP 2024) and Climate Action Plan 2025 (CAP 2025)**

CAP 2024 (December 2023) sets out a roadmap to deliver on Ireland's climate ambition, of 51% reduction in GHG emissions from 2021-2030 and net-zero emissions by 2050. The plan aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022. Climate Action Plan 2025 builds upon CAP 2024 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024.

6.0 **European and National Natural Heritage Designations**

6.1 **Natural Heritage Designation**

SAC/SPA

Levally Lough SAC (000295) 2.7km

Lough Corrib SAC (000297) 3km

Derrinlough (Cloonkeenleananode) Bog SAC (002197) 7.3km

Shankill West Bog SAC (000326) 10.6km

Lough Lurteen Bog/Glenamaddy Turlough SAC (000301) 10.9km

Williamstown Turloughs SAC (002296) 11.3km

Lisnaggeeragh Bog and Ballinastack Turlough SAC (000296) 14.2km

Coolcam Turlough SAC (000218) 14.6km

Lough Corrib SPA (004024) 28.8km

Galway Bay Complex SAC (000268) 33.2km

Inner Galway Bay SPA (004031) 35.1km

NHA

Drumbulcaun Bog pNHA (000263) 0.6km

Levally Lough pNHA (000289) 2.7km

Knockavanny Turlough pNHA (000289) 4.9km

Kiltullagh Lough pNHA (001282) 8.3km

Boyounagh Turlough pNHA (001237) 9.4km

Kilkerrin Turlough pNHA (001279) 10.4km

7.0 The Appeal

7.1. Grounds of Appeal

A third-party appeal has been lodged by Peter Sweetnam. The grounds of appeal are as follows:

- The appellant requests that the Commission carry out Appropriate Assessment that would comply with the judgment on the CJEU Case 258/11 (in particular section 44) a development which had a significant effect on the same SAC (Lough Corrib) as this one. This case relates to the N6 Galway City Outer Bypass road scheme and Section 44 states:-

“So far as concerns the assessment carried out under Article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned (see, to this effect, Case C-404/09 *Commission v Spain*, paragraph 100 and the case-law cited). It is for the national court to establish whether the assessment of the implications for the site meets these requirements”.

- The appellant requests that the Commission perform an assessment of the proposed development rather than of the EIAR/NIS.

- Condition no. 4(a) does not comply with requirements for complete, precise and definitive findings. Condition 4(a) states;-
 “4(a) All environmental mitigation and monitoring measures identified within the Natura Impact Statement and Environmental Impact Assessment Report and shall be implemented in full, save as may be required in order to comply with other conditions attaching to this order”.
- No assessment as required under the Water Framework Directive has been carried out.
- Further information was submitted, which included mitigation measures for the environment and new plans, reports and maps. This information was significant and section 35 should have applied with a further public notice and consultation period on the RFI information required in law.

7.2. Planning Authority Response

No response.

7.3. Observations

Two observations have been received:

An Taisce

- The proposal is in close proximity to Drumbulcaun Bog pNHA (000263) and it is recommended that the Commission considers the urgent need to preserve ecological integrity of the pNHA site, ensuring the proposal does not encroach on such.
- Given the high groundwater vulnerability of the subject site and the potential for quarry activity to have an impact on such the development should not be permitted without scientific certainty of the absence of negative impacts upon the pNHA, which is already experiencing quarrying pressure along its designated boundary.

Sabrina Joyce Kemper

- Loss of hedgerow impact on bats is noted, with it stated that the bat surveys are deficient in terms of guidelines (manual activity survey took place at dusk just before sunset on 9th August or approx. 30 minutes contrary the guidelines which recommends surveys take place 15 minutes before sunset to 1.5-2 hours after sunset) for such and the removal of hedgerows will have a significant impact that cannot be mitigated.
- There is other biodiversity on site including badgers and marsh fritillary with no meaningful assessment of impacts on such.
- The proximity of the Drumbulcaun pNHA (000263) is noted and the fact it was screened out for further assessment in the Planning Assessment.
- The proximity to Levally Stream which forms part of the Lough Corrib SAC is highlighted. The excavation to 6m to install plant equipment below the level of groundwater raises the possibility of contamination of groundwater.
- The observer claims that the proposal for a quarry of 3m depth is unsustainable and the proposal is really a borrow pit for the Clonberne windfarm (ABP-320089) and in this case is project splitting and should have been considered under that proposal.

7.4. Prescribed Bodies

None.

7.5. Applicants' Response

A response has been submitted by MKO Planning and Environmental Consultants on behalf of the applicants, Newtown Farming Ltd.

- The applicants clarify that there were drafting errors with three of drawings originally submitted concerning a proposal to extract material to a level of 6m below ground level in a localised sector of where the processing plant is to be located. The applicant submitted revised drawings correcting this error and

have note that the EIAR is unaltered with the average level of extraction over the entirety of the site being 3m.

- Drumbulcaun Big pNHA (000263) was identified to be within the likely zone of influence of the proposed development (EIAR Biodiversity Chapter) and was considered a key ecological receptor. Impact assessment was under this chapter and was considered that no significant impacts on groundwater quality are anticipated with mitigation measures and best practice procedures to be implemented. In response to the An Taisce submission a Technical Note has been prepared and submitted and clarifies that no residual impacts on Drumbulcaun Bog pNHA are anticipated.
- In response to criticism regarding the bat surveys in the context of the Bat Surveys for Professional Ecologists: Good Practice Guidance (Collins 2016) The applicants highlight that the suitability of the site for roosting, foraging and commuting bats was evaluated in accordance with the categories described in the aforementioned guidelines with hedgerows of *moderate* suitability and grassland of *low* suitability for foraging and commuting bats. In relation to the specific criticism regarding manual activity surveys the applicants highlight Table 6-1 of the Biodiversity Chapter of the EIAR and the fact that the manual activity surveys were carried out 23 minutes before sunset and concluded 2 hours and 5 minutes after sunset. The applicant highlights that two full spectrum static bat detectors were deployed within the site for 14 days. It is stated that the while providing foraging habitat in the form of hedgerows and open grassland the site had limited connectivity to the wider landscape and the surveys undertaken were sufficient and followed the relevant guidance.
- In terms of bat activity five species were identified with activity dominated by *pipistrelle* with recordings of *leisler's* bat, *myotis* and *brown long eared* bat as well as one occurrence of lesser horseshoe. The site was designated as a being of Local Importance (Higher Value) only as it is outside foraging range of any populations designated a Nationally or Internationally protected site.
- No roosting potential was identified on site. The unmitigated phased loss of hedgerow was assessed as potential significant effect on bat species of Local

Importance (Higher Value), however the hedgerow proposed to be removed for each phase will be reinstated prior to the next phase (Table 6-18 EIAR).

- The site provides suitable habitat for badgers and was surveyed for badger activity with no indication of significant badger activity recorded within the site and no breeding sites (setts) identified.
- For Marsh Fritillary the site was surveyed for such with no significant supporting habitat identified within the site. A small number of devils-bit scabious plants were recorded, and surveys were carried out August during larval web season of Marsh Fritillary with no larval webs recorded within the site.
- In regards to groundwater vulnerability and abstraction it is noted that all extraction will take place above the groundwater table with no effects likely as assessed in the EIAR. Notwithstanding such migration measures are proposed in respect of groundwater quality protection during the extraction phase (Section 8.5.2.3 of the EIAR). The applicant clarifies that there was drafting error concerning a proposal to extract material to a level of 6m below ground level in a localised sector of where the processing plant is to be located. The correct extraction volumes for each phase is outlined in the submission and such are in line with the information provided in the EIAR.

7.6. Further Response by An Taisce

- There is an onus on the applicant and consent body to justify development of a new quarry on a greenfield site and the applicants' response fails to justify this,
- In relation to Drumbulcaun Bog the onus is on the Commission to determine that no adverse impacts arise on groundwater and surface water.
- The Commission method of assessing quarries historically is systematically flawed with an inappropriate presumption of development rather than maintaining rural land use. Systematic failure of the Commission to assess

interactions between individual headings in the EIA directive and cumulative impact.

- The Commission attach conditions without responsibility for enforcement with particular concerns identified in relation to where quarry operators seek to extend or continue operation and the original conditions are ignored in favour of a new set of conditions.

8.0 Assessment

- 8.1. Having examined the application details and all other documentation on file, including all of the submissions received in relation to the appeal, the reports of the local authority, and having inspected the site, and having regard to the relevant local/regional/national policies and guidance, I consider that the substantive issues in this appeal to be considered as follows:

Principle of the proposed development

EIAR, Habitats Directive, Water Framework Directive

Drumbulcaun pNHA:

Traffic/Road Safety

Other Issues

8.2 Principle of the proposed development

- 8.2.1 The current development plan is the Galway County Development Plan 2022-2028. The plan contains a number of policies and objectives concerning mineral extraction. The Development Plan is supportive of mineral extraction (MEQ 1) however such is subject to adequate protection and regard to the environment (MEQ 2), the sustainable management of exhausted quarries (MEQ 3) and adequate landscaping plans for rehabilitation (MEQ 4).
- 8.2.2 The National Planning Framework First Revision (April 2025) indicates that “aggregates and minerals extraction will continue to be enabled where this is compatible with the protection of the environment in terms of noise, air and water quality, natural and cultural heritage, the quality of life of residents in the vicinity, and

provides for appropriate site rehabilitation particularly with respect to opportunities that may be provided for enhancement or restoration of nature in line with EU policies, such as the Nature Restoration Law, the EU Green Deal and EU Biodiversity Strategy 2020, and legislative instruments”. National Policy Objective 30 provides for facilitation of the rural economy including the extractive industries while at the same time noting the importance of maintaining and protecting biodiversity and the natural landscape and built heritage which are vital to rural tourism.

8.2.3 Conclusion: Policy at Local and National level is supportive of the mineral extraction subject to adequate environmental, landscape and amenity protection. I would consider there is considerable policy support for a grant of permission in this case and would highlight that the impact of the proposal relative to the environment, landscape and adjoining amenity will be assessed in the following sections of this report.

8.3 EIAR, Habitats Directive, Water Framework Directive

8.3.1 The appellant requests that the Commission carry out Appropriate Assessment that would comply with the judgment on the CJEU Case 258/11 states at 44) a development which had a significant effect on the same SAC (Lough Corrib) as this one. I would refer to Section 8.0 of this report and appendix 1 and 2 under which an Appropriate Assessment of the proposed development is carried out.

8.3.2 The appellant requests that the Commission perform an assessment of the proposed development rather than of the EIAR/NIS. I would refer to Section 8.0 and Appendix 1 and 2 of this report in regard to the Appropriate Assessment of the proposed development and Section 10.0 in regard to Environmental Impact Assessment. The assessment of the issues in this location knits the issues raised with the information supplied by competent experts and allows an iterative EIA to be arrived at, in compliance with the EIA directive.

8.3.3 The appellant states that no assessment as required under the Water Framework Directive has been carried out. Both planning reports associated with this file and detailed earlier under Subsection 8.2.2 and the EIAR under the sections relating to Land, soil, water and climate acknowledges that a Water Framework Directive Compliance Assessment was submitted and that the PA considered that such is in

accordance with the requirements of the Water Framework Directive. I would highlight that the applicants submitted as an Appendix of the EIAR (8-3), a Water Framework Directive Assessment and I would refer the Commission to Section 10.9 of this report, which is the section on Water under my Environmental Impact Assessment of the proposed development. An assessment of the proposed development has been undertaken in accordance with Article 4 of the EU Water Framework Directive (2000/60/EC), as transposed by the European Communities (Water Policy) Regulations 2003, as amended, and with regard to the River Basin Management Plan 2022–2027.

8.4 Drumbulcaun pNHA:

8.4.1 The observations received raised concerns regarding the impact of the proposal on Drumbulcaun pNHA (000263). This is in the context of the proximity of the site to Drumbulcaun Bog pNHA (000263) the need to preserve the ecological integrity of such, the high groundwater vulnerability of the site. One of the observations indicates that the impact on such should have been given further consideration than it was in application documents.

8.4.2 Drumbulcaun Bog pNHA (000263) is the nearest Natural Heritage Area to the appeal site being 0.6km to the west of the site boundary. The pNHA is characterised by Peatland Fens.

8.4.3 In terms of assessment, Chapter 6 of the EIAR in relation to Biodiversity includes identification of designated sites within the likely zone of influence of the proposed development including designated Natura 2000 sites and Natural Heritage Areas as designated under Section 18 of the Wildlife (Amendment) Act 2000 and Proposed Natural Heritage Areas (pNHAs), which were designated on a non-statutory basis. This chapter identifies 5 pNHA's within a likely zone of influence including Drumbulcaun Bog pNHA in addition to four others listed at Section 6.0 above. The reason for including these in the assessment of Biodiversity in Chapter 6 of the EIAR is their location within the same groundwater catchment as the appeal site and the potential for impact on the groundwater fed features of interest relative to these sites. The proposed development will not have any direct impacts on these sites including Drumbulcaun Bog pNHA due to the level of separation between the designated sites

and the appeal site as well as the characteristics of groundwater flow on site, which based on site investigations is eastwards towards Levally Stream and not towards the pNHA.

8.4.4 I would refer to Section 10 of this report in relation to Environmental Impact Assessment and in particular the assessment of the proposal for significant environmental effects on Biodiversity, Lands and Soil and Water. The nature of the proposal is for excavation of sand and gravel to a level of 3m across the site. The applicant has clarified that the drawings submitted original show the processing plant located to the southeast of the site at a level of 6m below ground level and has indicated in their response that this was a drafting error and has submitted revised cross-sections and a site layout infrastructural area that indicates the processing plant is at level of 3m below ground level and that the extraction depth is on average 3m across the entirety of the site as indicated in the application and the EIAR (no alteration of the content of the EIAR). I am satisfied that the proposal entails extraction to a depth of not more than 3m over the entirety of the site. The proposal does not include extraction below the level of the water table or any dewatering with no impact on groundwater flows as a result of extraction. As outlined under the relevant chapters of the EIAR, there is potential for discharge of pollutants to groundwater due to the free draining nature of the sand and gravels underlying the site during the construction, operational and decommissioning phase. The proposal does include a significant level of mitigation measures listed in the relevant chapters, 6, 7, and 16 of the EIAR, much of which are best practice standard measures to prevent discharge of pollutants to groundwater.

8.4.5 I am satisfied that the documentation submitted with application provides sufficient information to reach conclusion regarding the impact of the proposal on Drumbulcuan Bog pNHA. I am satisfied that the proposal will have no impact on groundwater flows at the designated pNHA due to the pattern of groundwater flow from the site away from the designated site in question, no extraction below the water table and no dewatering proposed in addition to the fact that mitigation measures during the construction, operational and decommissioning phase would be sufficient to prevent contamination of the groundwater body that underlies the appeal site and the Drumbulcuan pNHA and any other designated sites dependent on maintenance of good groundwater status.

8.5 Traffic/Road Safety:

- 8.5.1 The issue of traffic volumes in the context of significant effects on the environment alone or cumulatively with the other plans or projects was addressed in the EIAR and I would refer to Section 10, which is the section of this report relating to Environmental Impact Assessment. It is notable that the applicant was requested to submit further information, which included submission of detailed design elements impacting the public road, submission of a road safety audit, structural design details of all culverts to be traversed by HGV's and details of haul route pavement test. The preferred haul route from the site to the R328 is option B, which entails travelling south from the site along the L2232 and then onto the L2223 east to the R328.
- 8.5.2 The information submitted includes a detailed cross sections showing the level of the public road along the road frontage of the site where the local road is to be lowered either side of the new entrance to ensure forward visibility of 90m. The existing road is to be lowered by a maximum of 600mm to lower an existing hump in the road and will result in a new road pavement being placed on existing subgrade material. A structural assessment of two crossing points located on the L2223 to the southeast (part of Option B haul route, which is the preferred option), which include an existing bridge, Mahanagh Bridge and a culvert crossing confirms that both have structural loading capacity for the type of traffic likely to be generated. A Stage 1 Road safety Audit has also been submitted, which identified two issues. The first being the impact of existing hedgerow on sightlines at the new entrance with a recommendation that existing foliage and trees be removed to facilitate 90m sightlines in each direction. The removal of hedgerow to facilitate sightlines was part of the original proposal. The second is the possibility that traffic using the road may mistake quarry access for a public road and turn into it in error. The solution recommended was appropriate measures to limit the risk of access by non-quarry traffic. The further information also included a Structural Evaluation of the L2223 Lomaunghbaun to Ballyedmond. This is pavement survey carried out at 50m intervals for a distance of 6.6km.
- 8.5.3 In granting permission the Planning Authority applied a special contribution condition requiring the payment of €€33,525 to secure reinstatement of the public road. I am satisfied that the information submitted by way of further information was clarification

of a number of traffic safety/road design elements (as well as a maps showing the location of mitigation measures, clarification of surface water drainage and wastewater elements) and that the applicant addressed such in a satisfactory manner. I would note that the further information submitted resulted in no alteration of the contents of the EIAR submitted and as stated above the issue of traffic volumes in the context of significant effects on the environment alone or cumulatively with the other plans or projects was addressed in the EIAR and I would refer to Section 10 under which Environmental Impact Assessment is carried out. I am satisfied that the layout of the proposed development is satisfactory in regard to traffic safety with adequate sightlines proposed at the new entrance, sufficient detail regarding alterations required along the public road to facilitate sightlines and that the public road and road crossings that are to be used as the haul route to the site (Option B) are of sufficient structural integrity and condition to facilitate the traffic likely to be generated by the proposed development. The proposed development would be satisfactory in the context of traffic and road safety.

8.6 Other Issues:

- 8.6.1 The appellant highlights that Condition no. 4(a) does not comply with requirements for complete, precise and definitive findings. Condition no. 4(a) states the following :-
- 4(a) All environmental mitigation and monitoring measures identified within the Natura Impact Statement and Environmental Impact Assessment Report and shall be implemented in full, save as may be required in order to comply with other conditions attaching to this order.

In this case I would consider that this part of condition no. 4 is complete, precise and definitive as it makes clear that mitigation measures that are proposed in the NIS and EIAR are to be implemented. I would consider that the mitigation measures proposed are clearly set out in both the NIS (under section 6.3.1.1 and section 6.3.1.2) and the EIAR (in each individual chapter and, under Chapter 16, Schedule of mitigation). In the event of a grant of permission, it would be appropriate to apply a similar condition, however reference could be made to the relevant sections and Chapters in which mitigation measures are listed in addition to reference to the map

submitted by way of further information identifying the location of mitigation measures on site.

- 8.6.2 The appellant highlights that further information was submitted, which included mitigation measures for the environment and new plans, reports and maps. This information was significant and section 35 should have applied with a further public notice and consultation period on the RFI information required in law.
- 8.6.3 The further information request required the applicant to submit an updated site layout map showing the location of all mitigation measures to ensure no adverse effect on Natura 2000 sites, submission of site characterisation assessment of the site including a longitudinal section through the site and the proposed wastewater treatment system, submit details of water supply, submit revised detailed design elements impacting the public road, submission of a road safety audit, structural design details of all culverts to be traversed by HGV's, details of haul route pavement test and submission of a SuDS assessment for the proposed development.
- 8.6.4 The applicants' further information response provides a map detailing location of mitigation measures, clarification of wastewater proposals details of water supply (on-site well) detail of road design on site including vehicular entrance, a Stage 1 Road Safety Audit, structural design details for all crossing and culverts along the public road, an HGV Route Pavement Study technical design report regarding surface water drainage design. I would note that the further information received did not include any amendments to the content of the submitted EIAR. I would also note that the applicant in response to the appeal clarified that the extraction level of quarry is on average 3m for the entirety of the site as well as clarifying that the level of the processing plant is 3m below ground level and not 6m. This also does not alter the contents of the EIAR. I am satisfied that the information submitted in relation to further information, did not alter the nature scale and design of the overall development and was clarification of a number of elements. As stated, the information submitted did not alter the contents of the EIAR. I am satisfied that the submission of such did not result in the loss of the public participation rights and that the appellant and the observers have been able to make submissions and have subsequently lodged a third-party appeal and third-party observations on the appeal.

8.6.5 One of the observations raises concerns regarding project splitting, noting that the proposal is a borrow pit for the Clonberne windfarm (ABP-320089) and in this case is project splitting and should have been considered under that proposal. The wind farm proposal is a current application pending decision. The proposal is for a quarry extracting sand to depth of 3m and for a period of 10 years. In terms of links to the permitted wind farm, the observer's assertion is speculative. The proposal is on lands in separate ownership and a different applicant. It is possible that if permission is granted material from such may be used in implementation of the windfarm development if permitted, however the proposal is being assessed purely on its merits. I would note that the windfarm proposal includes proposals for a borrow pit located on the opposite side of the public road to the west of the site as part its application. Notwithstanding such, the proposed development has been submitted with an Environmental Impact Assessment Report due to such being mandatory under Schedule 5, Part 2, Class 2(b) as the quarry is over 5 hectares in size. This assessment identifies whether there will be significant environmental effects, alone or cumulative effects with other plans or projects. In addition, the proposal is accompanied by a Natura Impact Statement, which include an Appropriate Assessment screening and a Stage 2 Appropriate Assessment assessing the likelihood of significant effect on designated Natura 2000 sites in the vicinity if connected to the proposal both alone and cumulatively with other plans and projects.

9.0 Appropriate Assessment

9.1 Introduction

The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and 177V of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed are:-

- Compliance with Article 6(3) of the EU Habitats Directive.
- Screening the need for appropriate assessment.
- The Natura Impact Statement and associated documents.

- Appropriate assessment of implications of the proposed development on the integrity of each European site.

9.2 Compliance with Article 6(3) of the EU Habitats Directive

The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).

9.3 Screening the need for Appropriate Assessment

An AA Screening exercise has been completed (see Appendix 1 of this report for further details). In accordance with Section 177U(4) of the Planning and Development Act 2000 (as amended) and on the basis of objective information, it has been determined that the likelihood of the proposed development having a significant effect 'alone' on the qualifying interests of Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024) cannot be excluded. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is required on the basis of the effects of the project 'alone'. This determination is based on:

- Objective information presented in the applicant's reports;
- The zone of influence of potential impacts having regard to hydrological pathways to Natura 2000 Sites;
- The potential for construction-related impacts on surface water;
- The potential for operational stage impacts associated with surface water disposal;

- The application of the precautionary approach; and
- The nature and extent of predicted impacts, which could affect the conservation objectives of European Sites. The possibility of significant effects on other European sites has been excluded on the basis of objective information. No other European sites were determined to be within the zone of influence of the project.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

9.4 The Natura Impact Statement (NIS)

As outlined in Appendix 2 of this report, a Natura Impact Statement (NIS) has been submitted with the application. It considers the potential effects of the project on Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024). The NIS concludes that no significant effects are likely on Natura 2000 sites, their features of interest or conservation objectives, and that the proposed project will not will adversely affect the integrity of European Sites.

9.5 Stage 2 Appropriate Assessment of Implications of the proposed development

Appendix 2 of this report outlines 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. The European Sites considered are:

- Levally Lough SAC (000295)
- Lough Corrib SAC (000297)
- Williamstown Turloughs SAC (002296)
- Lough Corrib SPA (004024)

Following an Appropriate Assessment, it has been ascertained beyond reasonable scientific doubt that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024), or any other European site, in view of the sites' Conservation Objectives. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures and monitoring in relation to the Conservation Objectives of Levally Lough SAC, Lough Corrib SAC, Williamstown Turloughs SAC, Lough Corrib SPA.
- Detailed assessment of cumulative and in-combination effects with other plans and projects.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of Levally Lough SAC, Lough Corrib SAC, Williamstown Turloughs SAC, Lough Corrib SPA.

10.0 Environmental Impact Assessment

10.1 Statutory Provision

This section of the report deals with the potential environmental impacts of the proposed development during the construction, operation and decommissioning phases.

The proposal entails the development of a quarry for the extraction of sand on a phased basis over an area of c. 6.2 hectares by an average depth of 3m from existing ground levels. The proposed development exceeds the thresholds set out under Schedule 5, Part 2, Class 2(b), and an Environmental Impact Assessment Report (EIAR) has been submitted with the application.

10.2 EIA Structure

10.2.1 This section of the report comprises the EIA of the proposed development in accordance with the Planning and Development Act 2000 (as amended) and the associated regulations, which incorporate the European directives on EIA (Directive 2011/92/EU as amended by 2014/52/EU). It firstly assesses compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations, 2001. It then provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on defined environmental parameters, having regard to the EIAR and relevant supplementary information. The assessment also provides a reasoned conclusion

and allows for integration of the reasoned conclusions into the Commission's decision, should they agree with the recommendation made.

10.3 Issues in Respect of EIA

10.3.1 Any issues raised in third-party submissions, planning authority reports, and prescribed body submissions are considered later in this report under each relevant environmental parameter.

10.4 Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

10.4.1 The following table outlines my assessment of compliance with the requirements of Article 94 and Schedule 6 of the Regulations.

Table 10-1 - Requirements of Article 94 and Schedule 6 of the Regulations

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)	
Requirement	Assessment
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including) the additional information referred to under section 94(b)).	Chapter 2 of the EIAR describes the development, including a detailed description of the existing site and surrounding context; the characteristics of the project; and an outline of the construction phase including methodology and materials etc. The description is adequate to enable a decision on EIA.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).	Chapters 5-15 of the EIAR describe the likely significant direct, indirect, and cumulative effects on the environment, including the factors to be considered under Article 3 of Directive 2014/52/EU. I am generally satisfied that the assessment of significant effects

	relating to the proposed development itself is comprehensive and robust and enables decision making.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).	Each of the individual sections in the EIAR outlines the proposed mitigation and monitoring measures. They include 'designed in' measures and measures to address potential adverse effects at construction and operational stages, including an Environmental Management Plan. The mitigation measures include standard good practices as well as site-specific measures and in most cases are capable of offsetting any significant adverse effects identified in the EIAR.
A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, 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 proposed development on the environment (including the additional information referred to under section 94(b).	Chapter 3 of the EIAR considers alternatives in respect of alternative locations, designs / layout. It provides the main reason for selecting the proposed option. The do-nothing scenario is also outlined. In terms of this type of development the location is determined based on the working of aggregates where they occur with the alternative being a different greenfield site elsewhere. The site was considered suitable due to being a proven aggregate resource, it is located centrally in Co. Galway and well placed to serve local and national markets. It is

	accessible to the R328 by two potential haul routes (Option A and B). Alternative site layouts and projected designs were considered with the proposal considered the to best minimise the potential impacts on the environment from noise, dust, landscape and visual impacts. Of the two potential haul routes, option B running south along the L2223 to the R328 is the preferred option with option A to the north via the L2232 to Gorteen Cross requiring upgrades and may be used in the future subject to such occurring. I consider that the EIAR contains a description of reasonable alternatives, which is thorough, and which includes decisions being made on a strategic and specific site selection process. I consider that the legislative requirements to provide information relating to the reasonable alternatives which were considered, has been met.
Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).	
A description of the baseline environment and likely evolution in the absence of the development.	Each of the EIAR sections includes a detailed description of the receiving environment, which enables a comparison with the predicted impacts of the proposed development.

A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.	Each section of the EIAR outlines the Assessment Methodology employed, including consultations carried out, desk/field studies carried out, and any difficulties encountered. I am satisfied that the evidence based approach including, ecological surveys, borehole testing and trial pits, Landscape and Visual Impact Assessment, Traffic and Transport Assessment, Hydrogeological Assessment, Water Framework Directive Assessment are generally adequate, as will be discussed throughout this assessment.
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.	Chapter 14 of the EIAR acknowledges the need to consider the risk of major accidents and/or disasters, and outlines those relevant risks (construction accidents, fire/road traffic risk, and flood risk) are identified and mitigated throughout the EIAR. Contamination of groundwater due to fuel spills most likely by accident has been dealt with in the Chapter concerning Water (Chapter 8). Having regard to the nature, scale, and location of the project, I consider the approach to be reasonable.
Article 94 (c) A summary of the information in non-technical language.	The EIAR includes a Non-Technical Summary. I have read this part of the EIAR, and I am satisfied that it is concise and comprehensive and is written in a language that is easily

	understood by a lay member of the public.
--	---

Consultations

10.4.2 The EIAR outlines details of consultations carried out as part of its preparation. The application has been submitted in accordance with legislative requirements in respect of public notices. Submissions received from statutory bodies and third parties are considered in this report, in advance of decision making. I am satisfied, therefore, that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development in advance of decision making.

Compliance

10.4.3 Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001(as amended).

10.5 Assessment of the likely significant direct and indirect effects

10.5.1 This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.

10.5.2 In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the appeal/application.
- Examination of the EIAR.
- Analysis, Evaluation and Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

10.6 Population and human health

10.6.1 Issues Raised

None raised.

10.6.2 Context:

EIAR Chapter 5 describes the potential effects of the proposed development on population and human health. The EIAR describes methodology used, receiving environment, likely significant impacts and associated mitigation measures.

The chapter provides an assessment of impacts on population including employment and economic activity, land use, tourism, public perception of the proposed development.

10.6.3 Baseline:

The site is located in the Clonberne ED. This ED along with seven other EDS in the vicinity is identified as the study area (Fig 5-2) with population of 3,980 persons and a total land area of 19,269 hectares. The proposed development site is located in a rural area with a low residential population in the vicinity with twenty-one houses

within 1km of the site. The nearest dwelling is 190m to the southeast of the site. The nearest tourist attractions in terms of designated walking route or nature reserve are Richmond Esker Nature Reserve 7km to the southeast and nearest tourist attraction is Dunmore Castle and Dunmore Abbey, 8km and 7km respectively from the site. In terms of Human Health, it is highlighted that the effects on human health are examined separately in the EIAR Chapters concerning Air & Climate, Noise & Vibration, Geology and Soils, Hydrology & Hydrogeology and Traffic (Material Assets). In relation to vulnerability of the project to natural disaster and major accidents the EIAR indicates there is limited potential for such at the proposed site. Flooding is addressed in Chapter 8 (Hydrology & Hydrogeology). Property values are unlikely to be affected by the proposed development as the site is in a rural area and is screened by topography and vegetation.

Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-2 below;

Table 10-2: Summary of Potential Effects (Population and Human Health)
Do Nothing
• The 'do nothing' scenario would not result in any significant changes to the baseline. The existing use of the site as agricultural lands continues with or without the proposed development. • If the proposed development were not to proceed, the opportunity to exploit sand and gravel resource would be lost and the opportunity to generate local employment and investment and to diversify the local economy would also be lost.
Construction
• Health and Safety: Operation of heavy machinery during construction and operational phases poses a risk to health and safety of employees. Presence and operation of heavy machinery pose a risk to members of the public that might access the site from the entrance onto the public road. Presence of working faces and open quarried edges may pose risk to employees and members of the public who enter the site. Medium-term, potential significant, negative effects. • Population: No effect on population trends. No residual or significant effects. • Tourism: No effect on tourism. No residual or significant effects. • Employment and Investment: Construction will generate employment with long-term, moderate, positive effect. • Dust and vehicle emissions during construction. Without mitigation a medium, slight, negative effect. • Traffic and Transport Assessment presented in Chapter 13 establishes that a relatively low level of additional traffic will be generated by the proposal and will be accommodated by the road network.

Operation
• Health and Safety: Operation of heavy machinery during construction and operational phases poses a risk to health and safety of employees. Presence and operation of heavy machinery pose a risk to members of the public that might access the site from the entrance onto the public road. Presence of working faces and open quarried edges may pose risk to employees and members of the public who enter the site. Medium-term, potential significant, negative effects. • Population: No effect on population trends. No residual or significant effects. • Tourism: No effect on tourism. No residual or significant effects. • Employment and Investment: Operation will generate employment with long-term, moderate, positive effect. • Economic: Proposal will supply the base material necessary for construction of new housing and infrastructure required with a positive effect. • Dust, noise and vehicle emissions during construction and operational phase. Without mitigation a medium, slight, negative effect. • Traffic and Transport Assessment presented in Chapter 13 establishes that a relatively low level of additional traffic will be generated by the proposal and will be accommodated by the road network.
Restoration/Decommissioning
• Works required for restoration are described in Section 5.6.4 of the EIAR and include removal of all structures off site, using soil and overburden to level the site, restoration of original internal hedgerow boundaries and some additional planting, reseeding to reinstate grassland habitat. Impacts to implement restoration stage are expected to be similar to those at construction phase. No significant impacts expected. • Reinstatement of grassland and hedgerow habitat will have a long-term positive effect.
Cumulative
• Cumulative effects with the proposed windfarm and existing quarries operating in the area. • Dust and Noise: Potential cumulative effect is dealt with in Chapter 9 and 10 of the EIAR with imperceptible effects. • Traffic: Potential cumulative effects associated with traffic addressed under Chapter 13 temporary with imperceptible effects. • Employment and Investment: Significant, medium-term and positive cumulative effects between the proposal and other projects. • Population: No cumulative effects the population of the study area. • Land Use: No significant cumulative effects with surrounding land uses continuing and the site restored to agricultural use once operation ceases. • Tourism and Amenity: No significant cumulative effect on tourism.

10.6.4 Mitigation

A site-specific Health and safety plan, only authorised and trained persons to operate machinery, barriers and signage, controlled access/site security, site manager to act as Community Liaison Officer during construction, operational and decommissioning phase.

Maintenance of plant equipment, plant turned off when not in use, regular inspection of hardstanding/haul roads for cleanliness and cleaned if necessary, water spraying of conveyors and stockpiles, water spraying during loading activity, regular watering of hardstanding and haul roads to prevent dust, tarpaulin covered vehicles.

Traffic and Transport Assessment presented in Chapter 13 establishes that a relatively low level of additional traffic will be generated by the proposal and will be accommodated by the road network.

10.6.5 Residual Effects

Construction and Operation

Health and safety: Following implementation of mitigation measures effect will be medium-term, imperceptible, negative.

No residual effects for population, socio-economic and tourism.

Land-use: Permanent, moderate positive effect on land use.

Noise: Following implementation of mitigation measures effect will be medium-term, imperceptible, negative.

Dust and Air Quality: Following implementation of mitigation measures no significant effects.

Traffic: Following implementation of mitigation measures no significant effects.

Decommissioning/Restoration

Health and safety: Following implementation of mitigation measures effect will be temporary, negative effects.

No residual effects for population, socio-economic and tourism.

Land-use: Permanent, moderate positive effect on land use.

Noise: Following implementation of mitigation measures effect will be medium-term, imperceptible, negative.

Dust and Air Quality: Following implementation of mitigation measures no significant effects.

Traffic: Following implementation of mitigation measures no significant effects.

Cumulative

Health and safety: Cumulative effects with other projects mitigated by need to adhere to Health and Safety legislation.

Dust and Noise: Addressed in Chapter 9 and 10 with imperceptible effects concluded.

Traffic: Following implementation of improvement works and mitigation measures (alterations at the entrance and provision of a passing place on the L2232) will benefit all existing traffic using the road network with no significant effects.

Employment and Investment: Positive effect in terms of additional employment and economic activity.

Land-use: No significant cumulative effects having regard to the fact the abundant use in the vicinity would still be agricultural use.

Tourism and Amenity: No significant cumulative effects.

10.6.6 Assessment: Direct and Indirect Effects

I examined and, analysed and evaluated the information provided in Chapter 5 of the EIAR and all associated documents. I am satisfied that the information submitted in the EIAR demonstrates an understanding of the baseline environment. The nearest receptor (dwelling) to the site is 190m to the southeast, which is dwelling owned by the applicant and not a noise sensitive receptor. The next nearest sensitive receptor (occupied dwelling) is a dwelling 410m to the south-southeast and a dwelling 530m to the north. The construction, operational and decommissioning phase have to potential to impact the local community, particularly in regard to the effects of noise, vibration, dust and traffic generated by the proposed development. The site is sufficiently removed from any features of cultural, historical or tourism significance. These impacts are analysed in detail in separate Chapters 9 (Air & Climate), 10

(Noise and Vibration) and Chapter 13 (Material Assets). I am satisfied that the mitigation measures set in this Chapter and Chapters 9, 10, 13 and the full list of mitigation measures under Chapter 16 are acceptable including application of best practice emission limit values for noise, dust and vibration at the perimeter of the site with ongoing monitoring would be acceptable to prevent significant environmental effects on population and human health both alone and cumulatively with other plans and projects in the vicinity. The development site is mapped by the GSI as being within the Gallagher Group Water Scheme source protection area with the potential for the proposal to impact on water supplies serving the local population. Having regard to the fact that no extraction is proposed below the water table level and subject to mitigation measures (contained in Chapter and assessed in the Water section) to prevent pollution of groundwater the proposed will not have any significant effects on local water supplies. The proposed development would have direct socioeconomic benefits having regard to the increased economic activity and employment generated by the construction, operational and restoration phase as well as providing the base material required to deliver additional housing and infrastructure that are targeted under the County Development Plan and the National Framework Plan.

10.6.7 Conclusion: Direct and Indirect Effect

I have considered all of the written submissions and the relevant contents of the file including the EIAR. I consider the proposed sand and gravel quarry will have a significant positive impact on the local socio-economic environment due to employment.

I consider that an adequate description of the expected significant environmental effects on population and human health has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on population and human health is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of population or human health.

10.7 Biodiversity

10.7.1 Issues Raised

One of the observations raises the concerns regarding loss of hedgerow in the context of bat species and questions the level of detail and methodology of bat surveys carried out for the purposes of the application. Lack of adequate assessment of the site in terms of badger and Marsh Fritillary. Concerns regarding impact on Drumbulcaun Bog pNHA (000293) located 0.6km from the site are also raised due to proximity and the fact the site is and pNHA are underlain by the same groundwater body.

10.7.2 Context

Chapter 6 of the EIAR deals with biodiversity. It highlights that impacts on Natura 2000 Sites are addressed in the separate Appropriate Assessment Screening Report & Natura Impact Statement, which I have already discussed in Section 11 of this report. A pre-survey biodiversity search was carried out using data from the NPWS, NBDC, and EPA, in addition to mapping and aerial imagery. The potential Zone of Influence (ZOI) of the development was established having regard to hydrological pathways. Field surveys were also carried out as follows:

- Multi-disciplinary Walkover Surveys.
 - Ecological baseline surveys on the 26th of July and 09th August 2022.
- Terrestrial Fauna Surveys.
 - Badger Survey.
 - Marsh Fritillary Survey.
 - Bat Habitat Suitability Appraisal Survey
 - Roost Surveys
 - Manual Activity Surveys
 - Static Detector Surveys.
 - Invasive Species Survey.

The EIAR acknowledges Natura 2000 sites, National designated sites, and Ramsar sites within 15km and outside 15km with potential for a pathway. The nearest Natura 2000 site is the Levally Lough SAC (001058) c. 300m south of the site and the nearest Natural Heritage Area, Drumnulcaun Bog pNHA (000293) is c.0.6km south of the site.

10.7.3 Baseline

The majority of the site (>50%) consists of Dry Calcareous and Neutral Grassland (GSI)/Improved Agricultural Grassland (GA1) with other habitats on site including Building and artificial surfaces (BL3) (existing field access points) and spoil and bare ground (ED2). The site is bounded by Stone Walls (BL1) in associated with a series of Hedgerows (WL1). Some of the hedgerows are characterised by Scrub (WS1) and there is a small stretch of Treelines (WL2) along the western boundary of the easternmost field. The habitats are identified on the Habitat Map (6-4).

Fauna Species

Badgers: No indication of significant badger activity and no setts identified within or adjacent the development site. The development site does provide suitable supporting habitat for badgers and it is likely to occur within the site, at least on occasion.

Marsh Fritillary: A small number of devils'-bit scabious plants were recorded in the southeastern corner of the site. No larval webs were recorded during the surveys conducted in August.

Birds: Birds recorded during walkover surveys included species typical of agricultural lands (chaffinch, wood pigeon, rook, blackcap, wren and blackbird) with no species listed under the Birds Conservation Concern Ireland (BOCCI) red list or under Annex I of the EU Bird Directive identified no significant supporting habitat for such species existing within the site.

Bats

A bat habitat appraisal survey was carried out. No man-made structures (buildings) with potential to support bat roosts are present on site. Trees on site were assessed

for roosting potential. Hedgerows within the site were evaluated as having *moderate* suitability for commuting and foraging. Areas of grassland and stone walls were evaluated as having *low* suitability for commuting and foraging bats. The trees and hedgerows were assessed as having *negligible* roosting potential and the stone walls as having *low* roosting potential.

A Dusk Activity Survey was carried out with three species detected, Common pipistrelle, soprano pipistrelle and Leisler's bat, are all common species widespread in Ireland.

Static bat detectors were detectors in two locations on site for a total of 14 nights. Five bat species were detected. In addition to, Common pipistrelle, soprano pipistrelle and Leisler's bat, which make up the majority of bat activity, *Myotis* spp and Brown long-eared bat. One Lesser horseshoe bat pass was recorded at the site.

The Ecological Receptors are classified as follows in terms of importance or as a Key Ecological Receptor (KER)

Table 10-3 Habitat/Species/Designated Area	KER Y/N	
Sites		
European Sites Levally Lough SAC (000295) Lough Corrib SAC (000297) Williamstown Turloughs SAC (002296) Lough Corrib SPA (004042) International Importance	Y	Included as KER
National Sites Drumbulcaun Bog pNHA (000263)	Y	Included as KER

Leavally Lough pNHA (000295) Knockavanny Turlough pNHA (000289) Kiltullagh Lough pNHA (001282) Boyounagh Turlough pNHA (001237) Kilkerrin Turlough pNHA (001279) National Importance		
Habitats		
Building and artificial surfaces (BL3) Stonewall (BL1) Spild and bare ground (ED2) Scrub (WS1) Local Importance (lower value)	N	Not included as KER
Dry calcareous and neutral grassland (GS1) Local importance (higher value)	Y	Included as KER
Hedgerow (WL1) Local importance (higher value)	Y	Included as KER
Treeline (WL1) Local importance (higher value)	N	Not included as KER
Aquatic Receptors	Y	Included as KER

Local importance (higher value) to International Importance		
Fauna		
Birds Local importance (higher value)	Y	Included as KER
Badger Local importance (higher value)	N	Not included as KER
Marsh Fritillary Local importance (higher value)	N	Not included as KER
Other fauna species Local importance (higher value)	N	Not included as KER
Bats	Y	Included as KER

10.7.4 Potential Effects

Table 10-4 Summary of Potential Effects (Biodiversity)
Do nothing
The general biodiversity on the site would likely remain similar to its current state as activity levels and land use would not change significantly.
Construction, Operation and Decommissioning/Restoration
<u>Construction Phase</u> The following broad categories of impact could arise during all phases of the proposed development and are considered, where potentially relevant, in relation to each of the ecological features scoped in to detailed assessment: - Habitats – The sand and gravel quarry will result in the phased loss of areas of habitat that are of Local Importance (Higher Value) including Dry Calcareous & Neutral Grassland (GS1) and Hedgerow (WL1), a permanent, significant and irreversible impact with a significant effect at local geographic scale. - No surface water features on site or adjacent the site, however the site is within the Clare-Corrib groundwater body (GWB) with a high degree of interconnection between groundwater and surface water and a number of European and National sites that are dependent on good water quality. Potential for impacts on groundwater, surface water and European and National sites via deterioration of

water quality arising percolation of pollutants into groundwaters during the construction phase. In absence of mitigation potential for indirect effect, entailing a for short-term, moderate, reversible impact on aquatic habitats and fauna.

- **Effects on Protected Fauna During Construction** - The proposed development has the potential to result in habitat loss and disturbance impacts on faunal species that were recorded on the site including the bats and birds. Section 6.7.2.3 of the EIAR describes the potential effects. The EIAR notes that the potential for significant effects on aquatic species is restricted to indirect effects on their habitat from water pollution.
 - **Bats** - Construction phase during daylight hours only with no potential for disturbance of foraging and commuting bats due to lighting. Construction phase will result in loss of 0.9km of grassland habitat with potential loss of foraging habitat and short-term negative effect. Due to the abundance of similar grassland habitat in the wider area the there will be no significant effects on bat populations due to loss of foraging habitat.
 - **Birds** – No significant habitat loss/degradation with no loss of hedgerow or treeline habitats during construction. There is potential for the construction phase activities, which include vegetation clearance and levelling, installation of office and plant to result in disturbance to breeding birds and possible mortality juvenile birds. No significant effect on habitat loss/degradation and potential for significant effect in terms of disturbance/mortality.

Operational Phase

- Operational phase will result in the phased loss of section of habitats of local importance (lower value), which are common and widespread locally and of low biodiversity values.
- Hedgerows within the boundary were assessed as being of moderate suitability for foraging and commuting bats with the loss of 710m of hedgerow and 4.6ha of grassland during the operational phase. In absence of mitigation this is assessed as a short-term moderate negative effect.
- The operational phase will entail the loss of section of dry calcareous and neutral grassland and hedgerow, which are KERS and there are potential indirect effects on aquatic receptors via deterioration of water quality via percolation of pollutants into groundwater.
- No surface water features on site or adjacent the site, however the site is within the Clare-Corrib groundwater body (GWB) with a high degree of interconnection between groundwater and surface water and a number of European and National sites that are dependent on good water quality. Potential for impacts on groundwater, surface water and European and National sites via deterioration of water quality arising percolation of pollutants into groundwaters during the construction phase.
- **Effects on Protected Fauna During Operation** – The impact on fauna during the operational phase is similar as each phase of construction (three phases) is carried out however when operation is ongoing impact on fauna (bats and birds) will be limited as displacement of species to adjoining lands similar in nature to the existing site will have occurred as each of the phases is developed.

Decommissioning/Restoration

- For decommissioning/restoration, which is scheduled to take place after the proposed 10-year lifespan of the project, the impacts on biodiversity will also be similar in nature to those experienced during construction but on a far lesser scale

and magnitude. A Landscape Restoration Plan (LRD) has been prepared in Appendix 11-1. Following the implementation of preventative mitigation, there is no potential for the decommissioning of the Proposed Development to result in significant effects on biodiversity. • Works required for restoration are described in Section 5.6.4 of the EIAR and include removal of all structures off site, using soil and overburden to level the site, restoration of original internal hedgerow boundaries and some additional planting, reseeding to reinstate grassland habitat. Impacts to implement restoration stage are expected to be similar to those at construction phase.
Cumulative
• Following mitigation there will be no significant residual impacts on ecological receptors associated with the sand and gravel quarry and therefore no potential for individual or cumulative negative effects on biodiversity are likely to occur. • No significant residual effects in relation to disturbance, displacement or mortality of faunal species has been identified. Therefore, there is no potential for the wind farm to contribute to any cumulative effect in this regard. However, it has been concluded that there is a potential for a residual moderate negative impact as a result of the loss of cutover bog and woodland habitats. As such, there is a potential for cumulative impact at the local scale when considered in-combination with adjacent land uses. Significant effects not anticipated at the County scale.

10.7.5 Mitigation

Additional lands (4.6km away) in the applicants' ownership will be managed to promote dry calcareous and neutral grassland (identified in appendix 6.1 of the EIAR). Phased approach will entail reseeding sections of the habitat lost and grassland management carried out to reinstate the lost habitat.

Schedule of Mitigation in Chapter 16 in addition to an Environmental Management Plan (EMP).

Construction and Decommissioning

No mitigation required in terms of habitat loss/degradation. Mitigation measures in terms of disturbance mortality include plant and equipment complying with statutory instrument in term of permissible noise levels, machinery turned off when not in use, operating machinery restricted to proposed works area and vegetation removal done in line with the Wildlife Act and not during bird nesting season.

A phased reinstatement plan includes replanting of 830m of hedgerow and the reinstatement of species rich grassland throughout the site ensuring no long-term loss of grasslands within the site.

Schedule of Mitigation in Chapter 16 in addition to an Environmental Management Plan (EMP) in Appendix 4.2 of the EIAR.

Operational

No extraction to bedrock with protective layer for filtration of surface water runoff.

Water use in extraction and processing contained in a closed loop system.

Recycling of water means no requirement for settlement ponds and no discharge of water from processing to wider environment.

Water for dust suppression from recycled water holding tank.

Wastewater from wheel wash will flow via drainage infrastructure to a fuel/oil interceptor and then back to holding tank.

Site refuelling in designated areas (hardstanding) with spillages to fuel/oil interceptors adjacent the refuelling areas.

Sanitary wastewater will be contained in storage receptacle and emptied on a regular basis by appropriately licensed waste disposal company.

Mitigation measures are listed in the Environmental Management Plan (EMP) in Appendix 4.2 of the EIAR.

10.7.6 Residual Effect

Following implementation of mitigation measures there will be no significant residual effect.

Following implementation of reinstatement plan hedgerow would be restored on site, however short-term the phased loss of would result in a significant effect.

Following implementation of mitigation measures there will be no significant effects in terms of disturbance.

Following implementation of mitigation measures, there will be no significant long-term habitat loss for any bat species.

10.7.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 6 of the EIAR, all of the associated documentation and submission on file in respect of biodiversity. I am satisfied that the applicants' understanding of the baseline environment, by way of desk study and site surveys, is comprehensive and that the key impacts in respect of the likely effect on biodiversity, as a consequence of the development have been identified. Parties to the appeal have raised a number of issues in respect of biodiversity, which I address below.

- Loss of hedgerow impact on bats is noted, with it stated that the bat surveys are deficient in terms of guidelines for such and the removal of hedgerows will have a significant impact that cannot be mitigated.
- There is other biodiversity on site including badgers and marsh fritillary with no meaningful assessment of impacts on such.
- The proximity of the Drumbulcaun pNHA is noted and the fact it was screened out for further assessment in the Planning Assessment.

The proposed development will result in the loss of existing habitats on site for the period of the operational phase, which includes loss of mainly Dry Calcareous and Neutral Grassland (GSI)/Improved Agricultural Grassland, the proposal also entails the loss of approximately 710m of hedgerow habitat consisting of hazel, blackthorn and hawthorn will be removed, which are the internal field boundaries with the hedgerow habitat forming the boundary will be retained. Hedgerow habitat is of high biodiversity value and the loss of 710m is a significant permanent negative effect.

As part of EIAR the site was surveyed for with a bat habitat appraisal survey carried out. No man-made structures (buildings) with potential to support bat roosts are

present on site. Trees on site were assessed for roosting potential. Hedgerows within the site were evaluated as having *moderate* suitability for commuting and foraging. Areas of grassland and stone walls were evaluated as having *low* suitability for commuting and foraging bats. The trees and hedgerows were assessed as having *negligible* roosting potential and the stone walls as having *low* roosting potential.

A Dusk Activity Survey was carried out with three species detected, Common pipistrelle, soprano pipistrelle and Leisler's bat, are all common species widespread in Ireland.

Static bat detectors were detectors in two locations on site for a total of 14 nights. Five bat species were detected. In addition to, Common pipistrelle, soprano pipistrelle and Leisler's bat, which make up the majority of bat activity, *Myotis* spp and Brown long-eared bat. One Lesser horseshoe bat pass was recorded at the site.

A third-party observation has indicated that the bat surveys carried out are insufficient and not in accordance with best practice guidance and has submitted a copy of the Bat Conservation Trust, Bat Surveys for Professional Ecologists, Good Practice Guidelines (Collins 2016). I would note that the observation fails to elaborate in what way the bat surveys carried out are insufficient or how such fail to meet best practice guidance. The only specific criticism raised is that manual activity survey took place at dusk just before sunset on 9th August for approx. 30 minutes contrary the guidelines which recommends surveys take place 15 minutes before sunset to 1.5-2 hours after sunset. The information on file (Table 6-1) indicates that the manual activity survey took place on the 09th August 2022 and started 23 minutes before sunset and ended 2.5 hours after sunset and was during weather conditions suitable for bat surveys based on the Bat Surveys for Professional Ecologists, Good Practice Guidelines (Collins 2016). Based on the information on file the survey in question meets the criteria set down under the guidelines and covers the period recommended.

Having inspected the document submitted by the observer I would highlight that the extent of surveys carried out would appear to be in accordance with the guidance document submitted with the observation. The proposal was subject to preliminary ecological appraisal for bats with a desk study using a review of the National

Biodiversity Data Centre (NBDC) records. The site was subject to bat roost inspections surveys with trees, hedgerow and stones walls inspected and assessed for roosting potential. Emergence/re-entry surveys with the use of statis bat detectors for a period 14 nights in likely habitat used by foraging and commuting bats was carried out. In addition, bat activity and back-tracking surveys in the form of transect route was also carried out. The timing of the surveys was also during the optimal period for such as identified under Table 2.1 of the Bat Conservation Trust Guidelines (carried out July and August). The results of the surveys indicate that the site does support bat activity however such is in the form of commuting and foraging bats with negligible to low roosting potential on site. I would consider that the type surveys carried out are consistent with those identified in the guidelines the observer has referred to and that such have been carried out at the optimal time of the year based on the recommendation of such guidelines. As the observer has failed elaborate as to how the bat surveys carried out are insufficient, I have been unable to address any specific deficiencies identified. Having inspected the information submitted by the applicant and the guidelines submitted by the observer, I am of the view that the timing, methodology and contents of the bat surveys carried out are compliant with the guidelines in question. Having regard to this fact I am satisfied that the bat surveys carried out are sufficient to assess the impact of the proposal on bast and likelihood of significant effects.

The proposal will result in the loss of foraging and community habitat for bats species, however having regard to the fact that this habitat is not unique or specific to this site with similar habitat common in the area and abundant on adjoining sites, the impact of the proposal will be not be significant in terms of loss of habitat for foraging and commuting bats.

The same third-party observation states that there is other biodiversity on site including badgers and marsh fritillary with no meaningful assessment of impacts on such. The multidisciplinary survey included a search for any indication of badger activity within the entire site (latrines, badger paths and setts) with no activity detected and no further detailed surveys required. I would consider that the site has been surveyed for the purposes of identifying badger activity and based on the information submitted no such activity was detected on site.

In regard to Marsh Fritillary a small number of devils'-bit scabious plants were recorded in the southeastern corner of the site. No larval webs were recorded during the surveys conducted in August. A desktop survey in the form of examination of National Biodiversity Data Centre (NBDC) records and on-site survey was carried with a small area of the site identified as habitat for Marsh Fritillary. The applicant has identified that the site does not include suitable habitat for Marsh Fritillary. In this regard I am satisfied that the applicant has surveyed the site for the purposes of identifying Marsh Fritillary.

The proposal entails the loss of existing habitats in the form of Dry Calcareous and Neutral Grassland/Improved Agricultural Grassland and internal hedgerow boundaries. This will be a medium-term loss of habitat with a Land Restoration Plan to reinstate habitat upon decommission of the quarry after its 10-year period of operation. The proposal entails mitigation measures to prevent pollution entering groundwater during the construction, operational decommissioning phase and subsequent contamination of water quality in habitats remote from the site and species reliant on good water quality due to their connection in terms of groundwater bodies and catchments. Mitigation measures during construction have regard to the nesting periods of birds in term hedgerow removal. In terms of habitat loss during the construction and operational phase, there will be loss of habitat for commuting and foraging bats, Marsh Fritillary and the common bird species detected on site. This habitat is not unique to the site and is in a location where such habitat is abundant and in the intervening area. Having regard to such, there will be medium-term loss of habitat, however this will not be a significant effect having regard to the level of similar habitat available in the intervening area.

In relation to dust impact and effects on sensitive sites, dust deposition is most likely to be experienced within 100m of the dust source. The nearest sensitive ecological site is Drumbulcaun Bog pNHA approximately 0.6km from the site and sufficiently remote from the site as to experience no significant effects from dust deposition. The proposal does include mitigation measures including dust suppression measures and ongoing monitoring of dust levels at the boundaries of the site. Cumulative effects with the other quarrying activity in the area is unlikely having regard to the distance of the site from the nearest sensitive ecological site.

The applicant has proposed to carry out grassland management on separate lands (4.6km from the site) in their ownership to promote dry calcareous and neutral grassland (identified in appendix 6.1 of the EIAR). Notwithstanding such the provision of such, which would be a compensatory measure, I would be of the view in absence of this proposal the proposal would not have significant effects in terms of biodiversity.

10.7.8 Conclusion: Direct and Indirect Effects

I have considered all the written submissions made in relation to biodiversity and the relevant contents of the file including the EIAR. I consider that an adequate description of the expected significant environmental effects on biodiversity has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I am satisfied that the proposed development would not have an adverse impact on biodiversity (including habitats and species), subject to compliance with relevant legislation and guidance, implementation of the EIAR and final EMP mitigation measures and compliance with recommended conditions. The proposal will result in loss of existing habitats on site including Dry Calcareous and Neutral Grassland/Improved Agricultural Grassland and internal hedgerow boundaries, however given the fact such are not unique to the site and are habitats that are abundant in the intervening area, the effects on species associated with these habitats will not be significant with post operation landscape restoration of the current use and the type of habitats currently on site. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of biodiversity.

10.8 Land & Soil

10.8.1 Issues raised

The GSI submission identifies that there are no County Geological Sites (CGS) within the extraction area but there is a CGS within 3km in the form of the Levally Lough (Site Code GY089). It is noted there is no envisaged impacts on the integrity of the CSG. The GSI have requested that the operator might assist their geological

heritage goals with a condition allowing access to quarry faces by appropriate scientists during quarry and the leaving of representative section of quarry face at the end of life with inclusion of information panels to promote geology.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. The Groundwater Data Viewer indicates an aquifer classed as a 'Regionally Important Aquifer - Karstified (conduit)' underlies the proposed development. The Groundwater Vulnerability map indicates the area covered is classed as 'Moderate' to 'High' Vulnerability.

The proposed sand extraction is in the Gallagher Group Water Scheme (GWS) source protection area. Given the nearby drinking water sources (Group Water Scheme), the effects of any potential contamination as a result of the sand extraction would need to be assessed.

10.8.2 Context

EIAR Chapter 7 has assessed the potential impacts on the land, soils and geology associated with the proposed development. The EIAR provides a statement of authority and describes the legislation and guidance, the methodology used, the baseline conditions, the mitigation measures proposed and any residual impacts.

10.8.3 Baseline

The site is currently agricultural land used for grazing as is the lands in the surrounding area. There are two existing sand and gravel pits located within 1km of the site. The site is underlain by shallow well drained mineral soil of basis nature (BminSW). There are also gravels derived from limestone mapped within the site. In terms of bedrock geology, the site is underlain by the Carboniferous (Dinantian) Burren Limestone Formation. Site investigations (trail pitting and borehole drilling)

10.8.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-5 below.

Table 10-5: Summary of Potential Effects (land, Soils and Geology)	
Do Nothing	
If the sand and gravel quarry were to not proceed the existing agricultural land use is likely to continue.	
Construction	
- Preparation/enabling works will be minimal and be site enabling works lasting approx. 1 month with excavation of soil and subsoils. - There is potential for contamination of soils, subsoils and bedrock by oil/fuel spillages and leakages. In absence of mitigation, it will have a negative, reversible, slight, direct, unlikely, long-term effects.	
Operational	
- The proposal will result in the temporary loss of 6.2ha of poor-quality agricultural land and extraction will result in the removal of glaciofluvial overburden from the site. There will be no effects on adjoining lands. This will be a negative, moderate, direct, likely, temporary effect on land and land use. - Excavation of soils and subsoils (Aggregates): The development will involve the extraction of approx. 152,000m³ (291,840) of sand and gravel aggregates to an average depth of 3m. To achieve this 6,250m³ of topsoil will be removed and used to construct a temporary berm along the site boundary and then use in restoration post extraction. This will be a negative, irreversible, moderate, direct, likely, permanent effect on soils and subsoils. - Contamination of soil, subsoils and bedrock: There potential for contamination of soils, subsoils and bedrock by oil/fuel spillages and leakages. In absence of mitigation, it will have a negative, reversible, slight, direct, unlikely, long-term effects. - Erosion of exposed soils and subsoils: Potential erosion of soil and subsoil during it excavation and during extraction works. With it having a negative, slight, direct, short-term, likely effect.	
Decommissioning/Restoration	
The Proposed Development has been designed with an operational life of 10 years, at the end of which it can be decommissioned/restored with a Land Restoration Plan to return it agricultural use. Works required for restoration are described in Section 5.6.4 of the EIAR and include removal of all structures off site, using soil and overburden to level the site, restoration of original internal hedgerow boundaries and some additional planting, reseeding to reinstate grassland habitat. Impacts to implement restoration stage are expected to be similar to those at construction phase.	
Cumulative	
There is no potential for significant cumulative effects in-combination with other local developments on the land, soils and geology environment as all effects are direct within the Proposed Development site. Cumulative effects are not significant with the majority of surrounding lands remaining in agricultural use and the level of existing quarrying activity in conjunction with the proposal modest in overall scale in	

comparison to agricultural land use at this location. The windfarm if permitted will still retain the majority of its site in agricultural use.

10.8.5 Mitigation

All excavated material will be reused on site for infilling and landscaping.

Proper servicing of plant and machinery. Refuelling in controlled manner using drip trays (bundled container trays), designated trained operators, contingency plan in case of spillages and emergency spill kit.

Mitigation includes a restoration plan to return the site to grassland.

Adoption of a suitable landscape and restoration plans undertake during extraction and on completion of extraction.

Refuelling in designated areas (hardstanding) draining to hydrocarbon/oil interceptor. Proper servicing of plant and machinery. Refuelling in controlled manner using drip trays (bundled container trays), designated trained operators, contingency plan in case of spillages and emergency spill kit.

Soils removed from extraction area used to create boundary berm. Storage of vegetation layer where intact the right way up to encourage plant growth. Spoil/fines from processing to be stored in cells constructed in in-situ sand and gravel deposits. Re-seeding and spreading/planting carried out in these areas.

The restoration plan entails returning the site to grassland by removing all structures on site, spreading topsoil/overburden previously stripped and stored on site in the form of berms, replanting of internal hedgerow boundaries as well some additional planting and reseeding the land, which will be in agricultural use after quarrying finishes. The restoration plan does not entail importing material unless such is required to implement the restoration plan. No negative effects are anticipated. The mitigation measures relating to oils and fuels during the restoration plan will be the same as for the construction phase.

10.8.6 Residual Effects

Construction

Soils and Subsoils Excavation: Small footprint of the construction works area along with the final reinstatement plan means that the residual effect will be negative, imperceptible, direct, likely, permanent effect on soil and subsoils due to enabling works within the site.

Contamination of Soil, Subsoils and Bedrock (Spillages and Leakages):

Implementation of mitigation measures will result in residual effect being negative, reversible, imperceptible, direct, short-term, unlikely effect.

Operation

Lands and Land use: Relatively small footprint of the proposed development site on a local scale, along with the proposed restoration plan the residual effect will be negative, direct, slight, likely, temporary effect on land and land use.

Excavation (Aggregates): Negative, irreversible, moderate, direct, likely, permanent effect on soils and subsoils (aggregates).

Contamination of Soil, Subsoils and Bedrock (Spillages and Leakages):

Implementation of mitigation measures will result in residual effect being negative, reversible, imperceptible, direct, short-term, unlikely effect on soils, subsoils and bedrock.

Erosion of exposed soils and subsoils: Following implementation of mitigation measures the residual effect will be negative, imperceptible, direct, long-term, likely effect on soil and subsoils by erosion and wind action.

Decommissioning/Restoration

No negative impacts on the land, soil and geological environments are expected during the restoration or post restoration phase. The restoration will have a positive effect in terms of returning the application site back to agriculture.

Cumulative

All effects on land, soils and geology relating to the proposed project will be localised and within the development EIAR study area. Also, there is no potential for cumulative effects on local designated sites with regard land, soils and geology. Cumulative effects with other plans and projects such as existing quarrying activity and the

proposed windfarm will not be significant having regard to the fact the abundant use in the vicinity would still be agricultural use.

10.8.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 7 of the EIAR, all of the associated documentation and submission on file in respect of lands and soils. I am satisfied that the applicants' understanding of the baseline environment, by way of desk study and site surveys, is comprehensive and that the key impacts in respect of the likely effect on lands and soils, as a consequence of the development have been identified. Construction and operational phase will involve a change in land use from agricultural lands to a sand and gravel quarry. It is proposed to restore the land post operation and restore it to agricultural use. The proposal entails excavation of sand and gravel for a period of 10 years to an average depth of 3m throughout the site, which is a permanent effect. Construction, operational and decommission works have potential to cause discharge of sediment to surface water runoff and contaminated soils and subsoils. I am satisfied that the mitigation measures outlined in Chapter 7 and Chapter 16 are acceptable including construction and operational measures to prevent discharge of sedimentation to surface water runoff and pollution to soils and subsoils. Having regard to rehabilitation plans the loss of aggregates on site is permanent effect but would not be significant one.

10.8.8 Conclusion: Direct and Indirect Effects

I consider that an adequate description of the expected significant environmental effects on lands and soils has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on lands and soils is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of lands and soil.

10.9 Water

10.9.1 Issues Raised

The observers raise a number of issues including the proximity of the site to Drumbulcaun Bog pNHA and groundwater vulnerability in the context of pollution of groundwater and subsequent effect on the designated site. The proximity to Levally Stream which forms part of the Lough Corrib SAC is highlighted and the excavation to 6m to install plant equipment below the level of groundwater raises the possibility of contamination of groundwater. The GSI submission refers to the need for consideration of any potential impact of specific groundwater abstractions on groundwater resources in general with the Groundwater Data Viewer indicating an aquifer classed as a 'Regionally Important Aquifer - Karstified (conduit)' underlying the proposed development and groundwater vulnerability classed as 'Moderate' to 'High' Vulnerability. The proposed sand extraction is in the Gallagher Group Water Scheme (GWS) source protection area. Given the nearby drinking water sources (Group Water Scheme), the effects of any potential contamination as a result of the sand extraction would need to be assessed.

10.9.2 Context

Chapter 8 of the EIAR deals Hydrology and Hydrogeology with appendix 8-3 a Water Framework Directive Assessment and 8-4 a Hydrogeological and Flood Risk Assessment. The EIAR provides a statement of authority and describes the legislation and guidance, the methodology used, the receiving environment, the characteristics of the proposed development and the likely significant effects and associated mitigation measures proposed. Monitoring and site investigations hydrological walkover survey and detailed drainage mapping and baseline monitoring/sampling, Geotechnical ground investigations, trial pits boreholes, surface water flow measurements and surface water samples.

10.9.3 Baseline

The site is located in the Lough Corrib (Corrib_030) surface water catchment (2 no. WFD sub-catchments (Clare[Galway]_SC-040 and (Clare[Galway]_SC_030). The River Clare is located 23km southwest of the development site via the Grange River.

The development site drains towards the Levally stream, which is a tributary of the Grange River. The Levally Stream flows in a southerly direction approximately 0.7km to the east of the Proposed Development site. Levally Lough is located 2.7km to the south of the Proposed Development site. There is no direct surface water connection between Levally Lough and the proposed development site. The northwestern corner of the site is mapped within the Nanny (Tuam)_010 river sub basin, with the Nanny stream located ~2.4km to the southwest. However, site walkover surveys and drainage mapping has shown that the mapping of the WFD river sub-basins in this area is inaccurate. The direction of flow of surface water from the proposed development site is to the east towards the Levally Stream due to the local topography, however there is no direct surface water connection between the site and Levally Stream (watercourse).

There are no surface water features on site. Site underlain by freely draining sand and gravel deposits. No historical flood event on site with the nearest historical event at Gortagarraun Turlough 1.3km northeast. No mapped fluvial events downstream of the site along Levally Stream within 10km of the site. The site is not at risk of flooding.

EPA monitoring indicates surface water quality of Levally Stream, Grange River and Clare (Galway) River have a rating of Q4 (good) status).

The site is underlain by Dinantian Pure Bedded Limestone of the Burren Formation. The underlying bedrock is classified as a being a Regionally Important Aquifer-karstified (conduit). The site is located in the Clare-Corrib Groundwater Body (GWB). There are two Source Protection Areas (SPA) within 5km of the development site (Gurteen/Cloonmore GWS) and Gallagher GWS) which are karst spring sources.

No karst features within the development site. The nearest mapped karst feature is an enclosed depression, 0.43km northwest of the site. The closet turlough is Gortagarraun Turlough, located 1.3km northeast with Levally Lough 2.7km south. There is no evidence of karstification of underlying bedrock.

Site investigations including 4 no. boreholes showing bedrock levels on site and groundwater levels. Groundwater levels were continuously monitored between June 2022 and June 2023 including during winter months. Across the development site, there is a groundwater level difference of approximately 5m in summer and 8m in

winter. The seasonal groundwater level variation across the site is between 6 and 9m. With exception of the deepest sand and gravels on site (to the east) the deposits across the rest of the site are unsaturated all year round, Monitoring data for BH1 on the eastern part of the site shows that groundwater rises approximately 2m above bedrock during the winter period with a maximum groundwater level recorded on site at a level of 4.1mbgl (4.1m of unsaturated deposits)

10.9.4 Water Framework Directive

A Water Framework Directive Assessment is included in Appendix 8-3 of the EIAR which assesses Surface Water Bodies (SWB's) and Groundwater Bodies (GWBs) hydraulically linked to the site. which sets out the location and characteristics of the site as described above. No abstraction of groundwater or alteration of drainage patterns is proposed.

The site is located in the Lough Corrib (Corrib_030) surface water catchment (2 no. WFD sub-catchments (Clare[Galway]_SC-040 and (Clare[Galway]_SC_030). As stated above the site drains towards Levally Stream location 0.7km east of the site with the nearest surface water body being Levally Lough located 2.7km south and no direct surface water connection between the site and such. Any connection would be at groundwater level with all extraction above the water table level with site investigations (boreholes) confirming water table levels on site including during winter.

Surface water body classification indicates that Levally Stream_010 is of good status during the last two WFD cycles and is 'not at risk'. Further downstream the Grange River (Grange (Galway) _020, _030 & _040) have also being of good status and declared as 'not at risk'. Grange river feeds into the Clare River with Clare (Galway)_060 river waterbody which achieved 'poor' status in the latest WFD Cycle. Further downstream the Clare (Galway)_070 river waterbody achieved 'good' status, whilst the remaining lower reaches of the Clare River (Clare (Galway)_080, _090 & _100) achieved 'moderate' status. Of the downstream Clare River, the Clare (Galway)_070 river segment is the only waterbody that is declared as being 'not at risk'. The Clare (Galway)_060, Clare (Galway)_080 and Clare (Galway)_090 river waterbodies are each deemed to be 'at risk' due to hydromorphological significant pressures. The risk status of the Corrib Lower Lake waterbody is currently under

“review”. The Nanny (Tuam)_010 river waterbody achieved ‘moderate’ status in the latest WFD cycle and is currently under ‘Review’ with regards to its risk status. The status of the SWB’s s shown in Figure B of the applicants WFD Assessment.

Groundwater body classification shows the site is within the Clare-Corrib GWB (IE_WE_G_0020) which comprises of pale clean skeletal limestone of the Burren Foundation. These limestones are classified by the GSI as a Regionally Important Aquifer Karstified. The Clare-Corrib GWB achieved ‘good’ status in all 3 WFD cycles, however, has been classified as being ‘at risk’ of failing to meet WFD objectives due to agricultural activities pressures.

Table D of the report is a screening of WFD water bodies. In terms of further assessment, the following are screened in for further assessment.

Lough Levally Stream_010 SWB due to proximity and groundwater flow path connection.

Clare-Corrib GWB due to karst nature of bedrock and potential for groundwater contamination to spread fast within the GWB.

Lough Corrib SAC due to being located downstream of Levally Lough Stream.

All other SWB’s and protected areas have been screened out due to lack of surface water or groundwater connection, and proximity.

Section 4 of the submitted report is a WFD Compliance Assessment with the potential effects on the SWB’s and GWB subject to further assessment. Potential effects relate to potential for contamination of surface water through construction works, operational phase and implementation of restoration process. Section 4.3 goes through the mitigation measures to protect both surface water quality and groundwater quality during construction, operation and implementation of the restoration of the site post development. It is concluded that there will be no change in GWB or Surface Water Bodies (SWB) status in the underlying GWB or downstream SWBs as a result of the proposed sand and gravel quarry and there will be no adverse change in quantitative (volume) or qualitative (chemical) status, and

the underlying GWB and downstream SWBs are protected from any potential deterioration.

10.9.5 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-6 as follows;

Table 10-6: Summary of Potential Effects (Hydrology and Hydrogeology)	
Do Nothing	
If the sand and gravel quarry were to not proceed the existing agricultural land use is likely to continue.	
Construction	
- Suspended sediment in runoff/groundwater recharge: Removal of topsoil has the potential to generate suspended solids in surface water runoff with earth works and stockpiling of material a potential source of sediment laden surface water. There is no direct connection between the site and nearby surface waters with the only potential effects of such on groundwater recharge and lateral migration to groundwater and eventual discharge as baseflow into local streams. The permeable nature of subsoil sands and gravels will act as a natural filter and remove suspended solids before it reaches underlying groundwater table with no potential for significant effects. Negative, imperceptible, direct, temporary, unlikely effect on underlying groundwater quality. Negative, imperceptible, indirect, temporary, unlikely effect on downstream surface water quality. - Contamination of waterbodies: There potential for contamination of groundwater recharge, lateral groundwater flow and discharge to downstream surface watercourses by way of oil/fuel spillages and leakages during construction. In absence of mitigation, it will have a negative, reversible, slight, direct, unlikely, long-term effects. Negative, imperceptible, direct, temporary, unlikely effect on underlying groundwater quality. Negative, imperceptible, indirect, temporary, unlikely effect on downstream surface water quality. - Accidental release of cement-based products during the construction/site enabling works: Potential for entry of cement-based products into surface water runoff. The use of concrete during the construction phase with accidental spillages washing of machinery are the most likely sources of cement-based pollution during construction. Pathway through recharge and groundwater flow. Negative, indirect, slight, short-term, unlikely effect on surface water quality. Negative, indirect, moderate, short-term, likely effect on local groundwater quality.	
Operation	
Impacts on Groundwater Vulnerability due to extraction: Removal of subsoil overburden from extraction area will increase groundwater vulnerability rating of the underlying bedrock aquifer.	

Negative, irreversible, slight, direct, likely effect on groundwater vulnerability rating. - Impact on Groundwater Quality due to Entrained Sediment in runoff/recharge: Excavations, aggregate extraction and storage of fines/silts have the potential to release sediments into the groundwater system, particularly in karst environments where the groundwater vulnerability rating is often “Extreme” and particularly where conduit flow pathways potentially exist. Negative, reversible, slight, indirect, likely effect on groundwater quality. - Surface Water and Groundwater Contamination from Oil/Fuel Spill and Leaks: There is potential for contamination of groundwater recharge and flowpaths and by way of oil/fuel spillages and leakages from machinery in use during extraction. Negative, reversible, slight, indirect, unlikely, long-term effect on surface water and groundwater quality.
Decommissioning/Restoration
Restoration plan entails returning the site to grassland by spreading topsoil/overburden previously stripped and stored on site along with imported material. No negative effects are anticipated. The mitigation measures relating to oils and fuels during the restoration plan will be the same as for the construction phase.
Cumulative
Other land use activities in the vicinity include existing sand and gravel quarries (two within 1km), existing agricultural activities, residential uses and peat bogs. The small scale of the proposal and lack of significant residual effects mean there will be no significant cumulative impacts on lands, soils and geology with other plans and projects.

10.9.6 Mitigation

Construction

No specific mitigation measures due to filtration provided by sand and gravel subsoils on site.

Proper servicing of plant and machinery. Refuelling in controlled manner using drip trays (bundled container trays), designated trained operators, contingency plan in case of spillages and emergency spill kit.

No concrete batching on site, raw or uncured concrete used during the construction/site enabling works disposed of by removal off site, wash down water shall be impounded in lined lagoons, only the chute of concrete lorries to be cleaned on-site, concrete pours to be free of standing water and avoided during wet weather.

Operation

There will be a slight increase in vulnerability rating but no actual change to current greenfield/baseline vulnerability rating, which is ‘high’ to ‘extreme’. Aggregate will not be extracted to bare bedrock leaving a protective layer over bedrock for filtration.

Implementation of measures to prevent spillages and leakages of hydrocarbons (oil usage and refuelling measures) will be implemented to protect groundwater quality.

Extraction will not be down to bare bedrock leaving protective layer for filtration of surface water runoff. Soil/fines from aggregate will be store in cells constructed in-situ sand and gravel deposits. Excavated soil material stored as berms will be seeded and revegetated to avoid erosion.

Proper servicing of plant and machinery. Refuelling on hardstanding areas draining to hydrocarbon/oil interceptor. Refuelling in controlled manner using drip trays (bund container trays), designated trained operators, contingency plan in case of spillages and emergency spill kit.

Decommissioning/Restoration

Mitigation measures will be the same as that of the construction phase.

10.9.7 Residual Effects

Construction and Decommissioning

Negative, imperceptible, direct, temporary, unlikely effect on underlying groundwater quality.

Negative, imperceptible, indirect, temporary, unlikely effect on downstream surface water quality.

Implementation of mitigation measures will result in will be negative, reversible, imperceptible, direct, short-term, unlikely effect on waterbodies.

Implementation of mitigation measures will result in negative, imperceptible, indirect, short-term, unlikely effect on groundwater quality and the hydrochemistry of downstream surface watercourses including the Levally Stream.

No significant effects on surface water or groundwater quality anticipated to occur.

Operational

Implementation of mitigation measures mean the effect on groundwater quality will be imperceptible on groundwater quality.

Implementation of effective drainage control measures means the residual effect will be imperceptible on groundwater quality.

Implementation of mitigation measures will result in imperceptible effects to surface water quality.

10.9.8 The Assessment: Direct and Indirect Effects:

I have examined, analysed and evaluation Chapter 8 of the EIAR, and all associated documentation and submissions on file in relation to hydrology and hydrogeology. The mains impacts identified prior to mitigation occurring during the construction phase relate to sedimentation of surface water and groundwater and contamination of surface water and groundwater with hydrocarbons. I am satisfied that during operational phase following implementation of mitigation measures outlined in Section 8.5 of the EIAR relating to control of sedimentation and to control of hydrocarbons, there will be no residual effect on surface water quality. Chapter 9, Air and Climate deals with dust deposition with mitigation measures to minimise dust impact during the construction, operational and decommissioning/restoration phase and such will ensure no significant effects on existing surface water bodies notwithstanding the level of separation between the site and the nearest surface water body (Levally Stream). I consider that the applicants' assessment has identified the relevant issues and that with the implementation of mitigation measures outlined in the EIAR, I consider that the proposed development is not predicted to give rise to significant adverse at any phase of the development.

10.9.9 Impact on Local Designated Sites/Surface Water features and Group Water Schemes

I note the concerns raised in the observations and by the GIS in relation to impact on Drumbulcuan Bog pNHA (000263), Levally Stream and the Gallgah Group Water Scheme. In relation to Drumbulcaun Bog pNHA, which is the nearest designated site 0.6km to the north both the proposed site and designated site are part of the same groundwater body, the Clare-Corrib GWB (IE_WE_G_0020). Groundwater flow direction at the proposed development site is in an easterly direction and westerly at

Dunblaney/Drumbulcaun with no potential hydrological/hydrogeological linkage between the development site the pNHA.

Levally Stream flows in a southerly direction approximately 0.7km to the east of the proposed development site. Groundwater flow for the proposed development site is to the east, however there will be no change in quantitative (volume) or qualitative (chemical) status, and the underlying GWB and downstream SWBs are protected from any potential deterioration with practice and proven measures preventing water pollution to implemented and no potential for adverse effects on groundwater or surface water bodies.

There are 2 no. mapped groundwater Source Protection Areas (SPA's) within ~5km of the Proposed Development site (i.e. Gurteen/Cloonmore GWS and Gallagher GWS) and all have karst spring sources (Figure 8-10 of the EIAR) The development site is mapped by the GSI to be inside Gallagher GWS SPA. The hydrogeological investigations for the proposed development site reveal that local groundwater flow is to the east towards the Levally Stream. Groundwater from the area of the proposed development site will not flow towards the source of the GWS which is to the southwest and no adverse impacts will occur. Notwithstanding such groundwater will be unaffected having regard to no extraction below the level of the water table, no excessive level of water abstraction (on site well) and water recycled within a closed loop system.

10.9.10 Water Framework Directive

Under the WFD the Commission is obliged to ensure that development will not result in the deterioration in status of surface or groundwater, support the restoration of surface and groundwater to good status, protect and enhance the status of artificial or heavily modified bodies and achieve compliance with the standards and requirements for designated protected areas.

I note from the applicants EIAR that for all phases of development, there is no direct discharge from the site to downstream receiving surface waters or the underlying Ground Water Bodies (GWD). Mitigation for the protection of surface and groundwater during the construction phase will ensure receiving waters will not be altered by the

sand and gravel quarry. There will be no change in GWB or Surface Water Bodies (SWB) status in the underlying GWB or downstream SWBs as a result of the proposed sand and gravel quarry and there will be no change in quantitative (volume) or qualitative (chemical) status, and the underlying GWB and downstream SWBs are protected from any potential deterioration.

Having regard to these factors, which typically include best practice and proven measures preventing water pollution, I am satisfied that there is no potential for adverse effects on groundwater or surface water bodies. I recommend that conditions in respect of the implementation of all mitigation measures set out in the EIAR and AA be required.

10.9.11 Conclusion: Direct and Indirect Effects (Hydrology and Hydrogeology)

I have considered all the written submissions made in relation to hydrology and hydrogeology and the relevant contents of the file including the EIAR. I consider that an adequate description of the expected significant environmental effects on hydrology and hydrogeology has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on hydrology and hydrogeology is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of hydrology and hydrogeology.

10.10 Air & Climate

10.10.1 Issues Raised

None raised.

10.10.2 Context:

EIAR Chapter 9 has assessed the potential impacts on Air & Climate associated with the proposed development. The EIAR describes the legislation and guidance, provides a statement of authority and then describes air quality standards, the

baseline conditions, the likely significant impacts and associated mitigation measures and cumulative effects.

10.10.3 Baseline

The baseline environment is described in Section 9.2.5 of the EIAR. The site is located in Zone D (remainder of the country) in terms of the EPA Air Quality Zone designations. There are no statutory limits for dust in Ireland with German TA-Luft standard for dust setting a maximum possible emission limit level for dust deposit of 350mg/m²/day. The EPA Guideline, Environmental Management in the Extractive Industries (2006) and the Department of Environment, guidelines, Quarries and Ancillary Activities, Guidelines for Planning Authorities (2004) apply the Bergerhoff limit of 350mg/m²/day.

In relation to climate this Chapter refers to international and national targets in terms of greenhouse gas emissions and climate targets with reference to the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the COP21 Paris Agreement, COP25 Climate Change Conference, COP27 Climate Change Conference and the United Nations Sustainable Development Goals 2015 and the UN Sustainable Development Goals Report 2022. In terms of National targets reference is made to Programme for Government 2020, the Climate Action and Low Carbon Development (Amendment) Act 2021, the Climate Change Advisory Council and the Climate Action Plan 2023. The receiving environment has a temperate oceanic climate resulting in mild winters and cool summers. The nearest weather station is the Claremorris Station with mean annual wind speed being 8.7knots and average rainfall 1,173.6 mm/yr. Quarrying is required in terms the construction sector which is responsible for 37% of Ireland's emissions with 14% of such being from embodied carbon within construction materials. Under the Climate Action Plan 2023 there is a target (to 2030) of reducing embodied carbon by at least 30% for all material produced and reduce fossil fuel demand by 10%. It will be a target to carry out quarrying in a sustainable and low carbon method to reduce emissions.

10.10.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-7 below.

Table 10-7: Summary of Potential Effects (Air & Climate)	
Do Nothing	
If the sand and gravel quarry were not to proceed air quality at this location would remain unchanged and there would be no change to climate conditions in this area.	
Construction	
• General Air Quality: Overburden/stockpile removal and sand extraction will require operation of machinery with exhaust emissions associated with vehicles, machinery and plant during enabling phase with a temporary-term, slight negative effect. • Dust: Installation of concrete slabs for refuelling, wheel wash, weighbridge and drainage network may give rise to dust emission with a temporary, slight, negative effect. Traffic movements associated with enabling works have the potential to cause dust with such being temporary term in duration. • Climate: Increased greenhouse gas emissions from machinery and transport/traffic generated. Short-term and slight only, given the quantity of greenhouse gases associated with the generation and management of these waste streams that will be emitted to the atmosphere and will be restricted to the duration of the construction phase.	
Operation	
• General Air Quality: There is potential for vehicles removing sand from site to generate exhaust emissions. There is also potential for the excavation and processing of sand along with decommissioning and restoration using machinery that will generate exhaust fumes. There is a likely medium-term, slight, negative effect. • Dust Emission: Potential for dust generation from on-site activities including traffic movements and excavation works. Dust deposition influenced by nature activity and weather conditions. Site restoration will involve levelling of soil with potential for dust generation. • Climate: Increased greenhouse gas emissions from machinery and transport vehicles. Medium-term and moderate, given the quantity of greenhouse gases associated with the generation and management of these waste streams that will be emitted to the atmosphere.	
Decommissioning/Restoration	
• Restoration plan entails returning the site to grassland by spreading topsoil/overburden previous stripped and stored on site along with imported material. Potential for similar effects as construction stage temporary-term, slight negative effect, long term no significant effects. • In terms of climate restoration of the land will be a permanent moderate positive effect.	
Cumulative	
• Other land use activities in the vicinity include existing sand and gravel quarries (two within 1km), existing agricultural activities, residential uses and peat bogs. The small scale of the proposal and lack of significant residual effects mean there will be no significant cumulative impacts on air and climate with other plans and projects.	

10.10.5 Mitigation

Construction

Machinery maintained in good operational order, sporadic wetting to minimise dust particles and to reduce greenhouse gas emissions, progressive removal of overburden, regular inspection of access roads and public for cleanliness with road weeping and water misting if necessary.

Where necessary dampening down with water transport of dust generating material in tarpaulin covered vehicles, inspection of roads for cleanliness and cleaning where required and water bowser movements monitored to avoid increased runoff.

Operation

Machinery maintained in good operational order, engine switch off when not in use to reduce greenhouse gas emissions.

Regular inspection of hardstanding/roads for cleanliness and cleaned if necessary, site access road kept in good repair, regular watering of hardstanding as appropriate, water bowser movements monitored, transport of material in tarpaulin covered vehicles, all vehicles pass through wheel wash, reseeding immediately after reinstatement, plant and machinery kept in good working order and all plant stored in dedicated compound area. Dust monitoring at the site boundary using the Bergerhoff Guages.

Decommissioning/Restoration

For implementation of the Land Restoration Plan mitigation measures similar to construction phase.

10.10.6 Residual Effects

Construction

Following implementation of mitigation effect will be temporary, imperceptible and negative.

Operation

Following implementation of migration residual effect will be medium-term, imperceptible, negative effect.

Decommissioning

Following implementation of mitigation effect will be temporary, imperceptible and negative.

10.10.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 9 of the EIAR, all of the associated documentation and submissions on file in respect of Air & Climate. I am satisfied that the applicants' understanding of the baseline environment, by of the EPA Air Quality Zone and that the EIAR, is comprehensive and that the key impacts in respect of likely effects on air and climate, as a consequence of the development have been identified. No issues have been raised by any party to appeal/application in respect of air and climate.

I have examined, analysed and evaluated Chapter 10 of the EIAR, in relation to Air Quality. I am satisfied with the applicants understanding of the baseline environment with air quality in the area expected to be good and typical of a rural environment located in Zone D (as per EPA designation). The main potential for significant effects will arise during the construction and operation stage associated with exhaust emissions from plant and machinery and the generation of dust from construction works and operational excavation/processing works. Subject to the mitigation measures proposed in the EIAR and implementation of the Environmental Management Plan (EMP), which comprises good practice methods and measures, I am satisfied that no significant adverse effects on air quality are likely to occur during any phase of the development.

In terms of climate change the overall scale of the development in the context of potential greenhouse emission is not significant and subject to mitigation measures would not have a significant effect on the environment. The proposal is an important component of a construction sector for which there are targets set out under the Climate Action Plans to reduce carbon emissions and greenhouse gases and such are balanced against the need to provide the base material for the purposes of constructing housing and infrastructure that are key to meeting the housing targets and infrastructure targets of both local policies and objectives (County Development Plan) and national policies and objectives (National Framework Plan).

I accept the conclusions of the EIAR and am satisfied that following the implementation of mitigation measures outlined in the EIAR, that no significant impacts are likely in relation to air quality either alone or in combination with other developments.

10.10.8 Conclusion: Direct and Indirect Effects (Air and Climate)

I consider that an adequate description of the expected significant environmental effects on air and climate has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. In terms of climate change the proposal will result in the generation of greenhouse gases, however mitigation measures are proposed to minimise the levels of emissions. The generation of greenhouse gases must be balanced against the need for the base material to achieve local and national objectives/targets to provide additional housing and infrastructure. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of air and climate.

10.11 Noise & Vibration

10.11.1 Issues Raised

None

10.11.2 Context: Chapter 10 of the EIAR has assessed the potential impact associated with noise and vibration from the proposed development. The EIAR provides a statement of authority, describes the legislation and guidance, consultation undertaken, assessment of methodology and significance criteria, baseline conditions, describes the likely significant effects and associated mitigation measures and residual effects. There are no national mandatory noise criteria with a 55dB criterion identified under the WHO Guidelines on Community Noise (1999). The same criterion is identified under the Quarries and ancillary activities: Guidelines for planning authorities (DEHLG) and the Environmental management guidelines: Environmental management in the extractive industry (non-scheduled minerals) (EPA).

Guidelines for environmental noise impact assessment (Institute of Environmental Management & Assessment, 2014) (IEMA).

British Standard BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise (2014) sets out a procedure which may be used to determine the impacts of construction noise at surrounding receptors. On the basis of guidance given in the standard, a limit of 65 dB is considered appropriate, applicable at receptors, and over a one-hour period. This applies to temporary construction works occurring over a period of several weeks at the start of the project.

Design Manual for Roads and Bridges (UK Highway Agency, 2011) notes that the resulting noise impact is linked to the magnitude of the noise increase. Table 10-2 sets out the DMRB guidance (0-3dB imperceptible (negligible), 3-5dB perceptible (minor), 5-10dB up to doubling of loudness (moderate) and >10dB doubling of loudness or greater (major)).

In relation to vibration, the construction will not involve any activities which generate ground borne vibration and the operation of sand and gravel quarries are not associated with vibration with no blasting. Vibration was scoped out and is not assessed further in this Chapter.

10.11.3 Baseline

The nearest noise sensitive receptors were identified with the nearest dwelling located 190m to the southeast of the site (not a noise sensitive receptor as it is in the applicant's ownership). There are six habitable dwelling within 500m of the site. Figure 10.2 show all noise sensitive receptors within the surrounding area. A baseline noise survey was carried out at four points including at the entrance to the site and a number of points in the surrounding area.

10.11.4 Potential Impacts

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-8 below.

Table 10-8: Summary of Potential Effects (Noise and Vibration)

Do Nothing
Do-Nothing scenario, the noise environment would remain largely unchanged.
Construction
Noise impacts from operation of plant and excavation (excavator and dumper) during the construction phase. Expected noise emission from plant outlined in Table 10.6. Predicted noise levels at the nearest noise sensitive receptor during construction phase (Figure 10-9 and Table 10-7) will be 41dBA (dwelling 410m) to the southeast of the site and lower than 65dBA criterion for construction works under the relevant guidance. Noise impact is classified as slight adverse and temporary.
Operation
Three phases are proposed (Figure 10-8). There is potential for noise to be generated by extraction works, operation of the processing plant, operation of plant and machinery on site, noise generated by traffic associated with operation of the development. Modelling at the nearest noise sensitive receptors using plant noise data for the plant (excavator, dump truck, loader) and traffic (HGV) and the processing plant has been carried out and specifically for each of the three phases of operation. Noise levels at the nearest noise sensitive receptors (dwellings) for each phase will be below the relevant emission limit level of 55dBA.
Decommissioning/Restoration
Activities that occur during the decommissioning of the Proposed Development are unlikely to produce higher noise levels than those produced during construction and many of the activities will be similar in nature. As such it is considered that if construction noise levels are predicted to be below the threshold levels, then decommissioning/restoration noise will also be within the threshold levels.
Cumulative
Cumulative impact from the proposal and the actual wind turbines with the proposed development will be below the 55dBA criterion at the nearest noise sensitive receptors with impact assessed imperceptible and no significant effects.

10.11.5 Mitigation

Noise levels at nearest noise sensitive receptors will be lower than the 55dBA criterion. Stripped overburden will be used to form perimeter berms and will be extended in each phase and will mitigate noise impact. General mitigation measures during construction and operation include maintenance of plant equipment in good working order, prohibition of unnecessary revving engines, horns, maintenance of haul road to prevent rattles and machinery not in active use shut down.

10.11.6 Residual Effects

Noise levels from the proposed development will be lower than the 55dBA criterion under WHO guidance at the nearest noise sensitive receptors (dwellings).

Operational Phase: Neutral, imperceptible, medium-term.

Quarry traffic (dwellings along L2232): Imperceptible to not significant, medium-term.

Cumulative impact with windfarm borrow pit: Neutral, imperceptible, medium-term.

Cumulative impact quarry traffic and borrow pit: Negative, moderate, short term.

Cumulative impact quarry and windfarm: Neutral, imperceptible, medium-term.

10.11.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 10 of the EIAR, all of the associated documentation and submissions on file in respect of noise. I am satisfied that the applicants' understanding of the baseline environment, by way of noise surveys is comprehensive and that the key impacts in respect of likely effects in terms of noise as a consequence of the development have been identified. I am satisfied that the impact of construction works is temporary and can be carried out within the limits (65dBA) set down under best practice guidance, British Standard BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites Part 1: Noise (2014). I am also satisfied that noise levels at the nearest noise sensitive receptors will not exceed the recommended emission levels, which is the 55dB criterion identified under the WHO Guidelines on Community Noise (1999). The same criterion is identified under the Quarries and ancillary activities: Guidelines for planning authorities (DEHLG) and the Environmental management guidelines: Environmental management in the extractive industry (non-scheduled minerals) (EPA). I am also satisfied that the cumulative impact of the proposal with other quarry operations and the proposed wind farm would be satisfactory in the context of best practice emission levels for noise at the nearest noise sensitive receptors. I accept the conclusions of the EIAR and am satisfied that following the implementation of mitigation measures outlined in the EIAR, that no significant impacts are likely in relation to noise and vibration either alone or in combination with other developments.

10.11.8 Conclusion: Direct and Indirect (Noise and Vibration)

I consider that an adequate description of the expected significant environmental effects on noise and vibration has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on noise and vibration is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of noise and vibration.

10.12 Material Assets

10.12.1 Issues Raised

None

10.12.2 Context

Chapter 13 of the EIAR deals with Material Assets with the focus on Traffic and Utilities.

Traffic: This chapter should be read in conjunction with the Traffic and Transport Assessment Report (TTA) included at appendix 13.-1 of the EIAR. The site is located approximately 8.6km northeast of Tuam and 4.7km west of Clonberne on the western side of the L-2232. The site can be accessed from two routes from the R328 regional road (Route A from the north and B from the southeast) and indicated on Figure 13-1.

Route A: L-2232 from the site to the R328. 4km long, generally 4-5m wide but narrows to 3m at a point. Junction with the R328 at Gorteen Cross. Less than 160m x 3m visibility at junction with scope for improvement by removing grass mounds adjacent junction.

Route B

L-2232 for 1.5km section and the L-2223 for 5km to a junction with the R328.

Carriage width between 4m to 5m with 160m visibility at the junction between the L-2223 and R328.

10.12.3 Baseline

Traffic: Existing traffic volumes were established by way of traffic counts (2023) carried out at the junction of the R328 and L-2232 (Gorteen Cross) and the junction of the R328 and L-2223. Future year traffic volumes based on a commencement year of 2024 and a future year of 20234 have been used.

Utilities: No electrical or telecommunication services above or below ground anticipated, No gas supply lines on site. The site is mapped (GSI) to be inside the Gallagh GWS SPA, however groundwater flow is east towards the Levally Stream with no groundwater flow towards the GWS which is to the southwest with the site not within the GSW. The proposed development will be supplied by a newly installed borehole well with water usage on site a closed loop system continually recycled and used in the processing system. No wastewater infrastructure in the immediate vicinity with wastewater generated by the proposed development to be collected in a wastewater holding tank and disposed of by a licensed contractor.

10.12.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-9 below.

Table 10-9: Summary of Potential Effects (Material Assets)
Do Nothing
<u>Traffic and Transport</u> If the Proposed Development does not proceed there will be no additional traffic generated or works carried out on the road network and therefore no effects with respect to traffic.
<u>Utilities</u> If the Proposed Development does not proceed there will be no additional demand on existing utilities.
Construction
<u>Traffic and Transport</u> The construction phase will generate additional traffic volumes on the local road network. The construction phase will last 5 days with additional traffic generated on the network similar to the operational stage traffic levels. This additional traffic will have a temporary negative effect with a severity of effect assessed as slight.
<u>Utilities</u> No impact on utility services during construction and operational phase, no mitigation required.

Operation
<u>Traffic and Transport</u> - The operational phase will generate additional traffic volumes on the local road network. It is estimated that 2 HGV trips (15 per day) will be generated per hour with 4 car trips generated each day by staff with a long-term negative effect on the local road network and a severity of effect assessed as slight. <u>Utilities</u> - No impact on utility services during construction and operational phase, no mitigation required.
Decommissioning/Restoration
<u>Traffic and Transport</u> - On completion of the operation after 10 years the decommissioning/restoration phase will generate traffic volumes that will mirror the construction phase with an estimated period of 5.5 days and 15HGV movement per day. The effects of such will be negative, temporary and a severity of effect assessed as slight. <u>Utilities</u> - No impact on utility services during construction and operational phase, no mitigation required.
Cumulative
<u>Traffic and Transport</u> 17 developments were identified in the study area (15 permitted and 2 pending) mainly consisting of singles dwellings and some agricultural development. One project of note with permission granted is the Clonberne Windfarm. The construction of the windfarm will involve extraction material from a borrow pit on the windfarm site that will be transported via a section of the L-2232 (600m) south of the quarry access with 60 x 2-way trips/6 per hour for a period of up to two years. There will be a negative cumulative traffic impact with the proposed quarry due to both generating traffic on a section of the L-2232 at the same time with the severity of effect assessed as slight. <u>Utilities</u> - No impact on utility services during construction and operational phase, no mitigation required.

10.12.5 Mitigation

Traffic and Transport: Construction, Operation and Decommissioning

A detailed Traffic Management Plan (TMP) will be agreed with the Council prior to construction. Identification of delivery routes for both construction and operation. Road sweeping/cleaning as necessary. Re-instatement works for all roads to pre-development condition. Co-operation with the developer of the Clonberne windfarm to manage and monitor traffic demand on the 600m section of the L-2232.

Utilities: No impact on utility services during construction, operational phase and decommissioning phase, no mitigation required.

10.12.6 Residual Effects

Following implementation of mitigation measures construction, operational and decommissioning phase effects will be minimised. No significant effects anticipated.

10.12.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 13 of the EIAR, all of the associated documentation and submissions on file in respect of cultural heritage. I am satisfied that the applicants' understanding of the baseline environment, by way of traffic surveys and the associated TTA, is comprehensive and that the key impacts in respect of likely effects on material assets, as a consequence of the development have been identified. No issues have been raised by any party to appeal/application in respect of material assets. Having regard to the survey work carried out, the likely traffic impact of the proposed development has been identified. I consider the national, regional and local road network has sufficient capacity to cater for this increase in traffic volumes for all phases of the development. I am satisfied that a robust assessment has been undertaken and that the additional traffic movements for all stages of development will not give rise to any significant traffic hazards or disruptions along any of the roads or main junctions. I would consider that the nature of proposal is modest in terms of demand on utilities and can be adequately serviced without the need for significant additional infrastructure. The additional information submitted clarified that the existing road access and in particular the preferred haul route is sufficient in terms of structural integrity (pavement surface and crossing points) as well as clarifying the extent of works being carried out along the public road adjacent the proposed site entrance, which was confirmation of the levels of the improvement works proposed.

10.12.8 Conclusion: Direct and Indirect (Traffic and Utilities)

I consider that an adequate description of the expected significant environmental effects on material assets (traffic and utilities) has been provided in the applicants'

EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on material assets (traffic and utilities) is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of material assets (traffic and utilities).

10.13 Cultural Heritage

10.13.1 Issues Raised

None.

10.13.2 Context

Chapter 12 deals with Cultural heritage. The site is currently agricultural lands with no National or Record monuments within the site boundary.

10.13.3 Baseline

The nearest National Monument is Dunmore Abbey located 6.9km to the north. The nearest recorded monuments to the site are an enclosure (GA030-095 c.296m to the south of the site and a ringfort (GA020-097, c.469m south of the site). No previously unrecorded above-ground monuments or items of cultural heritage were noted within the development site with the site consisting of seven fields subdivide by hedgerow and stone walls. The nearest recorded excavations (excavations.ie) was 910m to the southwest of the site (human remains discovered in a quarry). In relation to architectural heritage, there are no protected structures located within the site with the nearest protected structure, Levally Catholic Church, c.2.5km to the south. No structures or items listed on the National Inventory of Architectural Heritage (NIAGH) are within the site with the nearest of such being the aforementioned Levally Catholic Church.

10.13.4 Potential Effects:

Like significant effects of the development, as identified in the EIAR are summarised in Table 10-10 below.

Table 10-10: Summary of Potential Effects (Cultural Heritage)	
Do Nothing	
	• If the proposed development were not to proceed, no changes would be made to the current land-use practice of agriculture. It is not anticipated that the do-nothing scenario would have any negative effects on the existing environment in terms of archaeology, architectural and cultural heritage. Land use would continue without the need for mitigation measures.
Construction	
	• No indirect effects including impacts on the setting of archaeological, architectural and cultural heritage features. • No direct physical impacts on any Recorded or National Monuments. Potential for disturbance of previously unrecorded sub-surface archaeological sites or features. Potential for significant, negative and permanent effect if subs-surface archaeological material discovered during construction.
Operational	
	• No indirect or direct effects including impacts on the setting of existing archaeological, architectural and cultural heritage features. No significant effects anticipated.
Decommissioning/Restoration	
	• There will be no significant potential impacts on the archaeological, architectural and cultural heritage environment during the decommissioning/restoration of the Proposed Development. Any potential direct impacts will already have been resolved through mitigation measures during the construction phase.
Cumulative	
	• No significant cumulative impacts have been identified and no cumulative effects to the immediate setting of cultural heritage assets will occur.

10.13.5 Mitigation

Construction: Pre-development archaeological testing under licence, report and preservation by record (archeologically excavated) or preservation in-situ (avoidance).

10.13.6 Residual Effect

Any archaeological sites/features, if detected, during monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same. The potential impact after implementation of mitigation measures is likely to be Not Significant.

10.13.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 12 of the EIAR, all of the associated documentation and submissions on file in respect of cultural heritage. I am satisfied that the applicants' understanding of the baseline environment, by way of desk study and site surveys, is comprehensive and that the key impacts in respect of likely effects on cultural heritage, as a consequence of the development have been identified. No issues have been raised by any party to appeal/application in respect of cultural heritage. Having regard to the survey work carried out, the location of the site relative to existing known recorded monuments, national monuments, protected structures and structures identified on the NIAH, that the only potential effect relates to disturbance of unknown sub-surface archaeological material during the construction phase. This will be adequately mitigated by the carrying out of pre-development testing under licence and preservation by record (excavation) or in-situ (avoidance) with no significant residual effects.

10.13.8 Conclusion: Direct and Indirect Effects

I consider that an adequate description of the expected significant environmental effects on cultural heritage has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on cultural heritage is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of cultural heritage.

10.14. Landscape:

10.14.1 Issues Raised

None.

10.14.2 Context

Chapter 11 deal with Landscape. Chapter 11 including sets out the Methodology, Regulatory and Policy Framework, Visibility of the Proposed Development, Landscape Baseline, Visual Baseline, Cumulative Context and Likely Significant Landscape and Visual Effects.

The chapter has been prepared in accordance with the 2022 Environment Protection Agency (EPA) Guidelines on the Information to be contained in Environmental Impact Assessment Reports as well as the 2013 Landscape Institute guidelines on preparing Landscape and Visual Impact Assessments. (GLVIA3, 2013).

The landscape of the area is described in terms of its existing character, which includes a description of landscape values and the landscape's sensitivity to change. The assessment uses visibility mapping, representative viewpoints, and photomontages. The potential impacts in both landscape and visual terms are then assessed, including cumulative impacts. A study area with radius of 2km from the application site has been chosen to represent the area over which the development can theoretically be seen a (Figure 11 -12). The EIAR notes the site is to be excavated to depth of 6m below ground level to install plant and processing machinery. Settlement tanks, which are 8.5m high will be 3m above ground level and the highest element is 10m high (processing plant) and will be 4.5m above ground level. This chapter outlines a description of the proposed development including details of the Landscape Restoration Plan (LRP).

10.14.3 Baseline

Under the Galway County Development Plan Landscape Character Assessment, the site is located in the North Galway Complex Landscape Character Type (LCT) and within Landscape Character Unit, LCU5e, Northern River Clare Basin, which is described as an "extensive, largely level plain with low enclosure. A long-settled working landscape of large regular stone-walled fields. Extensive areas of bog in east. Transition zone from bog areas to east". This is an LCU classified as 'low sensitivity'

and unlikely to be 'adversely affected by change'. No protected views or scenic routes within the LVIA study area (2km radius from site) with nearest protected view 8.1km to the southwest and closest scenic route 39.4km southwest. The LVIA indicates there are limited visual receptors within the LVIA Study Area.

An assessment of visibility from within the study area indicates no visibility or limited visibility from the majority of the study area.

Views from the North

L2217 to the north – No visibility.

L2017 to the north – No visibility.

Northwest (Dunblaney and Ballynamona) – No visibility.

Northeast (Gortagarraun) – No visibility.

Views from the South

L2107 (Lomaunaghbaun; Lomaunaghroe; Claddagh West; Claddagh East)- Limited visibility.

Garrauns Townland – No visibility.

Most visibility of the proposal is assessed as being view from the local road immediately south of proposed development and within 150m of the site.

The LVIA include viewpoint appraisal of one viewpoint in the townland of Lomaunaghbaun 90m south of the site. Viewpoint sensitivity is classified as 'low', magnitude of change at the viewpoint 'slight', significance of effect 'low x slight, minor negligible and not significant.

10.14.4 Potential Effects:

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-11 below.

Table 10-11: Summary of Potential Effects (Landscape & Visual)	
Do Nothing	
	If the Proposed Development were not to proceed, no changes would be made to the current land-use practice of low intensity agriculture and commercial forestry.

Should this occur the landscape and visual impact would be neutral in the context of this EIAR.
Construction
• Excavations works, construction of berms, construction and installation of processing plant, access road reprofiling and construction of site entrance will occur over a period of 1-3 months and although temporary, once constructed will be permanent and will have long-term landscape and visual effects. • Landscape effects assessed as temporary and long-term negative landscape effects of moderate significance. • Visual effects are assessed as not significant.
Operational
• Extraction works including phase removal of hedgerows and treelines, installation of plant, construction of structures will have landscape and visual effects. • Landscape effects locally assessed as long-term, negative landscape effects of moderate significance and not significant from wider landscape setting. • Visual effects assessed as not significant.
Decommissioning/restoration
• Decommissioning/restoration impacts similar nature and duration to Construction Impacts. • Landscape Restoration Plan assessed as having localised temporary, slight, negative landscape and visual effects, however upon completion will have neutral long-term landscape effects.
Cumulative
• Cumulative landscape and visual effects relate to existing quarries located to the southwest and a wind farm proposal (Clonberne wind farm) located to the east. The proposal is assessed as having limited visual exposure and the potential for cumulative landscape and visual effects will not be significant.

10.14.5 Mitigation

Embedded mitigation measures which form an integral, committed, and deliverable part of the proposed development design or comprise standard construction practices. These include retention of boundary hedgerow, construction of berms during construction and operation, and implementation of a Land Restoration Plan during decommissioning. They are assumed to be implemented and are therefore factored into the determination of residual significant effects.

10.14.6 Residual Effects

No significant residual effects in terms of visual and landscape.

10.14.7 The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 11 in respect of landscape and visual impact. I have inspected the site and the surrounding area. I also had regard to relevant policy and objectives of the Galway County Council Development Plan 2022-2028. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts that the proposed development could have on the surrounding landscape and visual amenity of the area.

Landscape

The landscape is low lying and undulating and characterised by grassland with hedgerow and treelines walls delineating field boundaries. The landscape is sparsely populated with limited one-off housing. The Landscape Character Assessment set out under the Development Plan identifies the site as being located in the North Galway Complex Landscape Character Type (LCT) and within Landscape Character Unit, LCU5e, Northern River Clare Basin, which is described as an “extensive, largely level plain with low enclosure. A long-settled working landscape of large regular stone-walled fields. Extensive areas of bog in east. Transition zone from bog areas to east”. This is an LCU classified as ‘low sensitivity’ and unlikely to be ‘adversely affected by change’. As identified by the applicant in the LVIA the site is not located in close proximity to any protected views or scenic routes and has limited to no visibility from the majority of the study area with the most visible location being localised views in close proximity to the site from the public road to the east/southeast of the site.

The site is most visible from short distances in the immediate locality of the site. Due to the nature of quarrying activity, it will have a physical impact on the landscape. There will be permanent physical effects on the landscape, relating to the proposed development. None of the affected landcover or vegetation are rare or decisive in forming the overall landscape character of the area. No protected views or scenic routes will be unduly impacted. I do not consider that the cumulative impact in terms of proximity to the other quarries and the proposed wind farm project would be unduly impacted due to existing topography and levels of screening in the area and intermittent nature of views, which would be largely screened by proposed berms and existing vegetation to be retained on site (external site boundaries).

10.14.8 Conclusion: Direct and Indirect Effects

I am satisfied that whilst there would be some visibility from short distance views, views would be intermittent and generally limited to glimpses only. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts of the proposed project on the landscape and visual amenities. Further, I consider that the viewpoints represent locations in the vicinity where there is a potential impact to arise from the proposal. Having regard to the surrounding context of local roads and agricultural uses and taken together with the visual impact of the existing quarry, the proposed development would have no significant direct or indirect effects on the landscape, visual amenity of the area or on any protected view or scenic route.

I consider that an adequate description of the expected significant environmental effects on landscape has been provided in the applicants' EIAR. The EIAR outlines comprehensive mitigation strategies designed to minimise such impacts. I consider that the mitigation measures proposed will be adequate to minimise the environmental effects highlighted. Based on the above, I am satisfied that the potential for significant effects on landscape is low. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts in terms of landscape.

10.15 Major Accidents and Natural Disasters

10.15.1 Issues Raised

None.

10.15.2 Context

EIAR Chapter 14 presents an assessment of the vulnerability of the project to major accidents and natural disasters (MA&ND). It is a requirement that of all EIARs It is a requirement of all EIARs to incorporate a section which identifies and describes the potential major accidents and natural disasters which could occur at the proposed development. These types of events have a very low probability of occurring, but if they do, the impact could be significant, with consequences such as serious harm to

people and / or damage to property and the environment. The EIAR identifies the following;

- The relevant major accidents and/or natural disasters, if any, that the Proposed Development could be vulnerable to or could cause;
- The potential for these major accidents and/or natural disasters to result in likely significant adverse environmental effect(s); and

The EIAR provides a statement of authority, then describes the assessment methodology, regulatory and policy framework, the baseline conditions, impacts, mitigation measures, residual effects, monitoring and cumulative impacts.

The assessment of the risk of major accidents and/or disaster is considered in relation to the information required to be provided in the EIAR, i.e., population and human health, biodiversity, land, soil, water, air, climate and material assets, cultural heritage and the landscape.

The EIAR provides a site-specific risk assessment which was carried out in accordance with the Environmental Protection Agency (EPA) 'Guidance on Assessing and Costing Environmental Liabilities' document, 2014.

10.15.3 Baseline

The EIAR notes in relation to the baseline that a quarry is not a recognised source of pollution, and it is not subject to Industrial Emissions Directive regulation or any other environmental regulatory consent. Should a major accident or natural disaster occur the potential sources of pollution onsite during the construction, operational and decommissioning phases are limited and of low environmental risk. There is low potential for significant natural disasters to occur at the site. Ireland is noted as being a geologically stable country with a mild temperate climate. The potential natural disasters that may occur are therefore limited to issues such as flooding and fire. The proposed development has low potential to cause natural disasters or major accidents.

The baseline conditions have been assessed in relation to the Major Emergency Plan for Galway. Items addressed for Galway include Transport Emergencies, Flooding, Severe Weather, Landslides, Tsunami, COMAH sites, Large Fires/Leaks, Hazardous Materials Interaction, Environmental Pollution, Terrorism, Large Crowd Events, Loss

of Critical Infrastructure, Pollution of Water Supplies, Communicable Disease/Public Health Emergencies, Utility Company Emergencies. The most relevant to the site are Critical Infrastructure Emergencies, Severe Weather, Flooding and Utility Company Emergencies.

10.15.4 Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10-12;

Table 10-12: Summary of Potential Effects (MA&ND)	
Do Nothing	
If the sand and gravel quarry were not to proceed, the existing use (agricultural) for the site would continue.	
Construction	
- The EIAR in Section 14.4.1.1.2 has identified seven risks specific to the construction phase. These risks are presented in Table 14.5 of the EIAR and include critical infrastructure emergencies which would cause a risk of delivery of material and equipment to site, Severe weather could cause a risk to construction activity on site, Risk of flooding in areas surrounding the site impacting the construction phase, risk of impact on local services and utilities due to construction activity, risk of a traffic incident (collision on site or offsite of construction vehicles) and contamination including discharge or spillage of fuel, chemical solvents into watercourses or percolated to groundwater, Risk of Fire/Gas explosion due to equipment/infrastructure failure, electrical problems or negligence. - The scenarios with the highest risk score in terms of the occurrence of major accident and/or disaster during construction was identified as 'Contamination' and risk of a Fire / Gas Explosion of the Proposed Development site.	
Operational	
- The EIAR in Section 14.4.1.1.3 has identified five risks specific to the operational phase. These risks are presented in Table 14-6 of the EIAR and include the risk of Severe Weather to operational activity on site, the risk of contamination due to discharge or spillage of fuel, chemical solvents, sewage or wastewater into watercourse or percolated to groundwater, risk fire/gas explosion due to equipment or infrastructure failure, electrical problems or employee negligence, risk of collapse or damage to structures due to earthquake, extreme weather events and vehicular collisions due to driver negligence on public roads, risk of traffic incident (collisions onsite and offsite with vehicles involved in the operation of the wind farm). - The scenario with the highest risk score in terms of the occurrence of major accident and/or disaster during operation was of 'Fire/Explosion'.	
Cumulative	
Section 14.4.5.2 of the EIAR states that the proposed development with mitigation measures in place, was found to have no potential for significant in-combination or cumulative effects associated with the potential for the project to be impacted by major accidents or natural disaster or the proposed developments potential to cause major accidents or natural disaster.	

10.15.5 Mitigation

Section 14.4.2 of the EIAR confirms that the sand and gravel quarry will be designed and built in line with current best practice and, as such, mitigation against the risk of major accidents and/or disasters will be embedded through the design. In addition, a Risk Management Plan will be prepared and implemented on site to ensure an effective response to disasters or the risk of accidents.

The mitigation measures and procedures and measures described in the Environmental Management Plan (EMP) in Appendix 4-2 of the EIAR, will ensure the protection of the environment from contamination.

10.15.6 Residual Effects

The EIAR presents the potential risks identified during all phases of development, which have all been classified as 'low risk' scenarios in accordance with the 'Guide to Risk Assessment in Major Emergency Management' (DoEHLG, 2010) and that when all mitigation detailed in the EIAR is implemented, there will be no significant residual effect(s).

10.15.7 The Assessment: Direct and Indirect Effects

I have examined, analysed, and evaluated Chapter 14 of the EIAR. A sand and gravel quarry is not a recognised source of pollution, and it is not subject to an Industrial Emissions Directive Regulation or any other EPA regulatory consent. I consider there is a low risk for significant natural disasters to occur having regard to the stable geology and mild climate of the country.

The EIAR provides a full risk assessment to establish the likelihood and impact of any major accident or natural disaster. This includes a risk assessment relating to transportation, contamination and fire/explosion during construction, operation and decommissioning phases. The highest risk was identified as 'Contamination' of the development site and risk of 'Fire / Gas Explosion' during all phases of development. The EIAR confirms that the sand and gravel quarry will be designed and built in line with current best practice and, as such, mitigation against the risk of major accidents

and/or disasters will be embedded through the design. Furthermore, prior to commencement of development, a Risk Management Plan will be prepared and implemented on site to ensure an effective response to disasters, or the risk of accidents and an EMP has been prepared and will be implemented to ensure that potential risks of major accident and/or disaster are identified, avoided and mitigated. I consider based on the risk assessment undertaken and the mitigation proposed that the proposed development has a low potential to cause natural or major accidents and that the Risk Management Plan and implementation of the EMP can be dealt with by way of condition.

10.15.8 Conclusion: Direct and Indirect (MA&ND)

I consider that an adequate description of the expected significant adverse effects on the environment due to the project's vulnerability to major accidents and disasters has been provided in the applicants EIAR. The EIAR outlines comprehensive risk management and mitigation strategies designed to minimise such impacts. I consider that the risks identified to be reasonable and the mitigation measures proposed will be adequate to minimise the risks highlighted. Based on the above, I am satisfied that the overall risk of Major Accidents and Disasters has been adequately addressed and the risk of MA&D is low.

10.16 Interactions

10.16.1 Chapter 15 of the EIAR evaluates the potential interaction of effects described within the EIAR. A matrix of the interactions is presented in Table 15-1 of the EIAR. The EIAR notes that the potential for interactions has been assessed through the EIAR as part of the Impact Assessment process and that where any potential negative impacts have been identified during the assessment process, these impacts have been avoided or reduced by design and the proposed mitigation measures, as presented throughout the EIAR and highlighted in Section 15.2 of the EIAR. The main interactions are land, soil, air water and biodiversity.

I have considered the interactions and interrelationships between environmental effects and am satisfied that significant impacts in relation to interactions can be

avoided, managed and mitigated by the measures contained within the EIAR and any recommended planning conditions.

10.17 Reasoned Conclusion

10.17.1 Having regard to the examination of environmental information contained above, to the EIAR provided by the applicant and the submissions received, the contents of which I have noted, I consider that the main significant direct and indirect effects of the proposed development on the environment are, and will be mitigated as follows:

- **Lands and Soils:** Striping of soils and overburden on site and the extraction of sand and gravel will be a negative, permanent and adverse effect. It will be mitigated by the reuse of soil and overburden on site to screen the extraction works and use of such for the restoration of the site to agricultural use with restoration of dry calcareous and neutral grassland and planting of hedgerows post operation.
- **Hydrology and Hydrogeology:** In terms of Hydrology and Hydrogeology, there is potential for a deterioration of water quality to the Clare-Corrib GWB (IE_WE_G_0020) waterbody arising from pollution/sedimentation during the construction, operational and decommissioning phase and subsequent deterioration of water quality in water bodies and designated sites linked to such including Levally Stream and Drumbulcuan Bog pNHA, which is dependent on good water quality. Having regard to the information on file, including details of the mitigation measures to be undertaken, no significant adverse direct, indirect or cumulative effects on the water environment, water quality or Water Framework Directive (WFD) or any waterbodies and designated site dependent on good water quality will arise as a consequence of the proposed existing development.
- **Air and Climate:** In terms of impacts on air quality, the proposal has potential to impact air quality and climate through emissions from plant machinery and traffic and dust generation during the construction, operational and decommissioning phase. Having regard to the level of change in traffic volumes and movements during the operational phase, the effect of the existing

development on national GHG emissions is not significant with the proposed development unlikely to have a considerable impact on climate. Having regard to mitigation measures to be implemented during the construction, operational and decommissioning/restoration stage it has been demonstrated that the risk of dust nuisance on human health and emissions on climate has been identified as having no significant direct, indirect or cumulative effects as a consequence of the proposed development.

- **Population and Human Health:** Significant positive impacts on the socio-economic profile of the area due to increased economic activity, employment provision and the supply of the base material necessary to facilitate future construction projects including housing, commercial and infrastructure projects.
- **Biodiversity:** The construction and operation of the quarry will result in the phased loss of habitat consisting of dry calcareous and neutral grassland and hedgerow and subsequent loss of habitat for commuting and foraging bats, and bird species. Having regard to the fact that this habitat is not unique to the site and is abundant within the intervening area and the level of habitat loss is small in the context of the available habitat in the area, this habitat loss will not have an adverse or significant effect on biodiversity at this location.

11.0 Recommendation

- 11.1. Having regard to the foregoing, I recommend that permission for the construction of a sand and gravel quarry and associated site works should be GRANTED permission for the following reasons and considerations subject to conditions.

12.0 Reasons and Considerations

In coming to its decision, the Commission had regard to the following:

- (a) the provisions of the Planning and Development Acts, 2000, as amended, and in particular Part XA, and the provisions of the Planning and Development Regulations, 2001, as amended.

- (b) the Climate Action Plan 2024 and Climate Action Plan 2025 (CAP 2025),
- (c) the National Planning Framework (Project Ireland 2040)
- (d) the 'Quarries and Ancillary Activities, Guidelines for Planning Authorities', issued by the Department of the Environment, Heritage and Local Government, April 2004,
- (e) the Supplementary Guidelines for Planning Authorities, issued by the Department of the Environment, Heritage and Local Government, July 2012
- (f) the applicable national, regional and local planning policy provisions including the Galway County Development Plan 2022-2028,
- (g) the EU Water Framework Directive 2000 (2000/60/EC),
- (h) the Natura Impact Statement and the Environmental Impact Assessment Report submitted with the application, and documentation on file generally,
- (i) the submissions received from prescribed bodies,
- (j) the planning history of the site and the surrounding location,
- (k) the pattern of development in the area,
- (l) the nature, scale, characteristics and location of the development, the subject of this application for including in relation to potential significant effects on the environment and on the integrity of European sites in the area,
- (m) the report of the Inspector.

12.1 **Appropriate Assessment Stage 1**

The Commission considered the Screening Report for Appropriate Assessment and all other relevant submissions and carried out an appropriate assessment screening exercise in relation to the potential effects of the proposed development on designated European sites. The Commission noted that the proposed development is not directly connected with or necessary for the management of any European Site and considered the nature, scale, and location of the proposed development, as well as the report of the Inspector. The Commission agreed with the screening exercise carried out by the Inspector.

The Commission concluded that, having regard to the qualifying interests for which the sites were designated and in the absence of connections to and distance between the application site and the European sites, including Derrinlough (Cloonkeenleananode) Bog SAC (002197), Shankill West Bog SAC (000326), Lough Lurleen Bog/Glenamaddy Turlough SAC (000301), Lisnaggeeragh Bog and Ballinastack Turlough SAC (000296), Coolcam Turlough SAC (000218), Galway Bay Complex SAC (000268) and Inner Galway Bay SPA (004031) could be screened out from further consideration and that the proposed development, individually or in combination with other plans or projects would not be likely to have significant effects on these European Sites or any other European Site in view of the sites' conservation objectives and that a Stage 2 appropriate assessment is therefore not required in relation to these European Sites.

The Commission considered that an appropriate assessment of the implications of the proposed development for the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002296) and Lough Corrib SPA (004024) required further investigation.

12.2 Appropriate Assessment: Stage 2

The Commission considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed development for the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002296) and Lough Corrib SPA (004024).

The Commission considered the information before it was adequate to allow the carrying out of an Appropriate Assessment as well as the report of the Inspector. In completing the assessment, the Commission considered the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects, the mitigation measures which are included as part of the current proposal and the Conservation Objectives for these European Sites. In completing the Appropriate Assessment, the Commission accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regards to the sites' Conservation Objectives.

In overall conclusion, the Commission was satisfied that the proposed development would not adversely affect the integrity of Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002296) and Lough Corrib SPA (004024) or any other European Site in view of the sites' Conservation Objectives.

12.3 Likely Effects on the Environment/Environmental Impact Assessment

The Commission completed an environmental impact assessment of the proposed development taking account of:

- a) the nature, scale and extent of the proposed development,
- b) the Environmental Impact Assessment Reports (EIAR's) and associated documentation submitted in support of the application,
- c) the Screening for Appropriate Assessment and NIS and associated documentation submitted in support of the application,
- d) the planning authority reports, and the submissions received from the appeal submission and submission from the observers and prescribed bodies, and
- e) the Inspector's report.

The Commission considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development, and identifies and describes adequately the direct, indirect, residual and cumulative effects of the proposed development on the environment.

The Commission agreed with the examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and submission made in the course of the application.

The Commission considered, and agreed with the Inspector's reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are and would be mitigated as follows:

- **Lands and Soils:** Striping of soils and overburden on site and the extraction of sand and gravel will be a negative, permanent and adverse effect. It will be

mitigated by the reuse of soil and overburden on site to screen the extraction works and use of such for the restoration of the site to agricultural use with restoration of dry calcareous and neutral grassland and planting of hedgerows post operation.

- **Hydrology and Hydrogeology:** In terms of Hydrology and Hydrogeology, there is potential for a deterioration of water quality to the Clare-Corrib GWB (IE_WE_G_0020) waterbody arising from pollution/sedimentation during the construction, operational and decommissioning phase and subsequent deterioration of water quality in water bodies and designated sites linked to such including Levally Stream and Drumbulcuan Bog pNHA, which is dependent on good water quality. Having regard to the information on file, including details of the mitigation measures to be undertaken, no significant adverse direct, indirect or cumulative effects on the water environment, water quality or Water Framework Directive (WFD) or any waterbodies and designated site dependent on good water quality will arise as a consequence of the proposed existing development.
- **Air and Climate:** In terms of impacts on air quality, the proposal has potential to impact air quality and climate through emissions from plant machinery and traffic and dust generation during the construction, operational and decommissioning phase. Having regard to the level of change in traffic volumes and movements during the operational phase, the effect of the existing development on national GHG emissions is not significant with the proposed development unlikely to have a considerable impact on climate. Having regard to mitigation measures to implemented during the construction, operational and decommissioning/restoration stage it has been demonstrated that the risk of dust nuisance on human health and emissions on climate has been identified as having no significant direct, indirect or cumulative effects as a consequence of the proposed development.
- **Population and Human Health:** Significant positive impacts on the socio-economic profile of the area due to increased economic activity, employment provision and the supply of the base material necessary to facilitate future construction projects including housing, commercial and infrastructure projects.

- **Biodiversity:** The construction and operation of the quarry will result in the phased loss of habitat consisting of dry calcareous and neutral grassland and hedgerow and subsequent loss of habitat for commuting and foraging bats, and bird species. Having regard to the fact that this habitat is not unique to the site and is abundant within the intervening area and the level of habitat loss is small in the context of the available habitat in the area, this habitat loss will not have an adverse or significant effect on biodiversity at this location.

12.4 Proper Planning and Sustainable Development

On the basis of the above, and noting the conclusions reached in the Inspectors report that the proposed development accords with the proper planning and sustainable development and that environmental effects would be acceptable, the Commission is satisfied that it is appropriate for the to grant permission, taking into account the wider support for extractive industry set out in the Galway County Development Plan 2022-2028 as well as national and regional policy support for extractive activities. In conclusion on this matter, the Commission was satisfied that the proposed sand and gravel quarry at this location is acceptable and the current proposal is in accordance with the proper planning and sustainable development for the area.

12.5 Recommended Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application and the further details submitted on the 19th day of July 2024 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.

Reason: In the interest of clarity.

2.

(a) The permission shall be for a period of 10 years from the date of the commencement of extraction. All structures, including foundations, shall then be removed and the site reinstated unless, prior to the end of that period, planning permission shall have been granted for their retention for a further period.

(b) The site shall be reinstated in accordance with the Land Restoration Plan submitted with the application.

Reason: In the interest of landscape restoration upon cessation of the project.

3. The mitigation measures contained in the submitted Environmental Impact Assessment Report (EIAR) at Chapters 5-15 inclusive and Chapter 16 Schedule of Mitigation shall be implemented.

Reason: To protect the environment.

4. The mitigation measures contained in the submitted Natura Impact Statement (NIS) as outlined under sections 6.3.1.1 and 6.3.1.2 shall be implemented.

Reason: To protect the environment and the integrity of European sites.

5. The Environmental Management Plan (EMP) set out under Appendix 4-2 of the Environmental Impact Assessment Report (EIAR) shall be implemented in full.

Reason: In the interest of orderly development.

6.

(a) Free-field noise levels attributable to the operation of the sand and gravel quarry when measured at the nearest noise sensitive locations at the boundaries of the site, shall not exceed 55 dB(A) Leq, 1h during permitted operating hours and shall not exceed 45dB(A) Leq, 15 min at any other time.

(b) Notwithstanding (a) above, where any temporary quarry activity is expected to exceed the noise limits above, this shall be notified in advance to the planning

authority, and to residents in the vicinity, indicating the reason for such activity, and its likely duration. No such exceedance of noise limits shall occur without the prior written agreement of the planning authority.

Reason: In order to protect the [residential] amenities of property in the vicinity.

7.

(a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of [30] days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement date and the frequency of monitoring results, and details of all dust suppression measures.

(b) A monthly survey and monitoring programme of dust and particulate emissions shall be undertaken to provide for compliance with these limits. Details of this programme, including the location of dust monitoring stations, and details of dust suppression measures to be carried out within the entire quarry complex, shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall include an annual review of all dust monitoring data, to be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

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

8. The developer shall submit annually, for the lifetime of the permission, an aerial photograph which adequately enables the planning authority to assess the progress of the phases of extraction.

Reason: In order to facilitate monitoring and control of the development by the planning authority.

9. The quarry, and all activities occurring therein, shall only operate between 0700 hours and 1800 hours, Monday to Friday and between 0700 hours and 1400 hours on Saturdays. No activity shall take place outside these hours or on Sundays or public holidays. Deviation from these times shall only be allowed in exceptional circumstances where prior written agreement has been received from the Planning Authority.

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

10. The developer shall engage a suitably qualified (licensed eligible) archaeologist to monitor (licensed under the National Monuments Acts) all site clearance works, topsoil stripping, groundworks, dredging and/or the implementation of agreed preservation in-situ measures associated with the development. [specify, as appropriate, following consultation with the Local Authority Archaeologist or the National Monument Service (NMS)]. Prior to the commencement of such works the archaeologist shall consult with and forward to the Local Authority archaeologist or the NMS as appropriate a method statement for written agreement. The use of appropriate tools and/or machinery to ensure the preservation and recording of any surviving archaeological remains shall be necessary. Should archaeological remains be identified during the course of archaeological monitoring, all works shall cease in the area of archaeological interest pending a decision of the planning authority, in consultation with the National Monuments Service, regarding appropriate mitigation [preservation in-situ/excavation].

The developer shall facilitate the archaeologist in recording any remains identified.

Any further archaeological mitigation requirements specified by the planning authority, following consultation with the

National Monuments Service, shall be complied with by the developer.

Following the completion of all archaeological work on site and any necessary post-excavation specialist analysis, the planning authority and the National Monuments Service shall be furnished with a final

archaeological report describing the results of the monitoring and any subsequent required archaeological investigative work/excavation required. All resulting and associated archaeological costs shall be

borne by the developer.

Reason: To ensure the continued preservation [either in situ or by record] of places, caves, sites, features or other objects of archaeological interest.

11.

The following requirements of the Geological Survey Ireland shall be implemented.

(a). Allow access to quarry faces by appropriate scientists (upon request and with due regards to Health and Safety requirements) during quarrying to check for interesting new strategies / relationships as they might become exposed and to establish if the quarry site is worthy of recognition post extraction and through aftercare/restoration planning.

(b) If deemed appropriate in (1) above, leave a representative section of the quarry face at the end of the quarry life or inclusion of information panels to promote the geology to the public or develop tourism or educational resources if appropriate depending on the future use of the site. Natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface.

Reason: In the interest of geological knowledge.

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

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

13. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to 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 Coimisiún Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

14. The developer shall pay a financial contribution of €33,525 (thirty three thousand five hundred and twenty five euro) to the planning authority as a special contribution under Section 48(2)(c) of the Planning and Development Act 2000, as amended, in respect of to secure reinstatement of the public road and road markings which may be damaged by the transportation of materials to the site, to secure the provision of existing drains, open space and other services required in connection with the development. The contribution shall be paid prior to commencement of development or in such phased payments as may be agreed prior to the commencement of the development and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the terms of payment of this financial contribution shall be agreed in writing between the planning authority and the developer.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority in respect of public services, which are not covered in the Development Contribution Scheme or

the Supplementary Development Contribution Scheme and which will benefit the proposed development.

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.

Colin McBride

Senior Planning Inspector

06th August 2026

Appendices

Appendix 1

AA Screening Determination

Screening for Appropriate Assessment Screening Determination
Step 1: Description of the project and local site characteristics
Permission is sought for the development of a quarry for the extraction of sand in a phased basis (three phases) over an area of c. 6.2 hectares by an average depth of 3m from existing ground levels. The appeal site, which has a stated area of 6.2 hectares, is located on the western side of the L2232 (Local Road) in the townland of Lomaunaghbaun c.7km south of the town of Dunmore and c.10km northeast of Tuam. The site is made up of seven fields currently in agricultural use (grassland), which are currently defined by existing stonewalls and hedgerows.
<u>Habitats</u> The site is not within or directly adjoining any Natura 2000 sites. The majority of the site (>50%) consists of Dry Calcareous and Neutral Grassland (GSI)/Improved Agricultural Grassland (GA1) with other habitats on site including Building and artificial surfaces (BL3) (existing field access points) and spoil and bare ground (ED2). The site is bounded by Stone Walls (BL1) in associated with a series of Hedgerows (WL1). Some of the hedgerows are characterised by Scrub (WS1) and there is a small stretch of Treelines (WL2) along the western boundary of the easternmost field. Surveys conducted on site include surveys for terrestrial mammal, bats, birds, reptiles and amphibians, flora and habitats and invasive species. I am satisfied that the site is not a significant ex-situ foraging or roosting site for QI species associated with any of the surrounding Natura 2000 sites. <u>Surface Water</u>

The site has existing surface water bodies either on site or adjoining the site. The River Clare is located 23km southwest of the development site via the Grange River. The development site drains towards the Levally stream, which is a tributary of the Grange River. The Levally Stream flows in a southerly direction approximately 0.7km to the east of the Proposed Development site. Levally Lough is located 2.7km to the south of the Proposed Development site. There is no direct surface water connection between Levally Lough and the proposed development site. EPA monitoring indicates surface water quality of Levally Stream, Grange River and Clare (Galway) River have a rating of Q4 (good) status).

Groundwater

The site is underlain by Dinantian Pure Bedded Limestone of the Burren Formation. The underlying bedrock is classified as a being a Regionally Important Aquifer-karstified (conduit). The sand and gravel are mapped as Locally Important. The site is located in the Clare-Corrib Groundwater Body (GWB). There are two Source Protection Areas (SPA) within 5km of the development site (Gurteen/Cloonmore GWS) and Gallagher GWS) which are karst spring sources.

No karst features within the development site. The nearest mapped karst feature is an enclosed depression, 0.43km northwest of the site. The closet turlough is Gortagarraun Turlough, located 1.3km northeast with Levally Lough 2.7km south. There is no evidence of karstification of underlying bedrock

Potential Impacts

- There is a potential pathway (i.e. hydrological connection which could act as a route for potential impacts) from the source site. Therefore, the Qualifying Interests of this SAC could be affected.
- Potential negative impacts include impacts on surface water/ ground water quality due to construction and operational related emissions, increased sedimentation and construction related pollution.

Effect Mechanisms

• Deterioration of water quality as a result of sediment, pollution, dust, oil/hydrocarbon, hard surface run off etc., during construction and operational phases. • Potential damage to the habitats and species dependent on water quality - an impact of sufficient magnitude could undermine conservation objectives.				
Screening Report		Y		
Natura Impact Statement		Y		
Relevant submissions				
Step 2: Identification of relevant European sites using the Source-pathway-receptor model				
Four European sites were identified as being located within a potential zone of influence of the proposed development as detailed in the Table below. I note that the applicant included a greater number of European sites in their initial screening consideration (eleven). There is no ecological justification for such a wider consideration of sites, and I have only included those sites with any possible ecological connection or pathway in this screening determination.				
European Site (code)	Qualifying interests¹ Link to conservation objectives (NPWS, date)	Distance from proposed development (km)	Ecological connections²	Consider further in screening³ Y/N
Levally Lough SAC (000295)	Turloughs [3180]	2.7km	Underlain by same groundwater body	Y

Lough Corrib SAC (000297)	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	3km	Same groundwater catchment	Y
--------------------------------------	---	------------	-----------------------------------	-----------------

	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150] Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] Limestone pavements [8240] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Bog woodland [91D0]			
--	--	--	--	--

	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Austropotamobius pallipes (White-clawed Crayfish) [1092] Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Salmo salar (Salmon) [1106] Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303] Lutra lutra (Otter) [1355] Najas flexilis (Slender Naiad) [1833] Hamatocaulis vernicosus (Slender Green Feather-moss) [6216]			
Williamstown Turloughs SAC (002296)	Turloughs [3180]	11.3km	Same groundwater catchment	Y

Lough Corrib SPA (004042)	Pochard (<i>Aythya ferina</i>) [A059] Tufted Duck (<i>Aythya fuligula</i>) [A061] Common Scoter (<i>Melanitta nigra</i>) [A065] Hen Harrier (<i>Circus cyaneus</i>) [A082] Coot (<i>Fulica atra</i>) [A125] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Shoveler (<i>Spatula clypeata</i>) [A857] Gadwall (<i>Mareca strepera</i>) [A889] Wetland and Waterbirds [A999]	28.8km	Same groundwater catchment	Y
Step 3: Describe the likely effects of the project (if any, alone <u>or</u> in combination) on European Sites				

The proposed development will not result in any direct effects on any of the three SAC and one SPA, however due to the nature and scale of the proposal impact generated by the construction and operation of the quarry in terms of hydrological connection (groundwater) potential negative impacts include impacts on surface water/ ground water quality due to construction and operational related emissions, increased sedimentation and construction related pollution and the possible effects including the following:-

- Deterioration of water quality as a result of sediment, pollution, dust, oil/hydrocarbon, hard surface run off etc., during construction and operational phases causing pollution of groundwater due to freely draining sand and gravel deposits underlying the site.
- Potential damage to the habitats and species dependent on water quality - an impact of sufficient magnitude could undermine conservation objectives.

AA Screening matrix

Site name Qualifying interests	Possibility of significant effects (alone) in view of the conservation objectives of the site	
	Impacts	Effects
Levally Lough SAC (000295) Turlough	Direct: None Indirect: Negative impacts on water quality due to construction and operational emission including pollution of groundwater.	Direct: None Indirect: Negative affect on habitat quality and undermine conservation objectives related to water quality.

	Likelihood of significant effects from the proposed development (alone): Y	
Lough Corrib SAC (000297) Oligotrophic waters containing very few minerals of sandy plains, Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea, Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation, Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites), Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae), Active raised bogs, Degraded raised bogs still capable of natural regeneration, Depressions on peat	Direct: None Indirect: Negative impacts on water quality due to construction and operational emission including pollution of groundwater.	Direct: None Indirect: Negative affect on habitat quality and undermine conservation objectives related to water quality.

substrates of the Rhynchosporion, Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>, Petrifying springs with tufa formation (Cratoneurion), Alkaline fens, Limestone pavements, Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles, Bog woodland, <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel), <i>Austropotamobius pallipes</i> (White-clawed Crayfish), <i>Petromyzon marinus</i> (Sea Lamprey), <i>Lampetra planeri</i> (Brook Lamprey), <i>Salmo salar</i> (Salmon), <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat), <i>Lutra lutra</i> (Otter), <i>Najas flexilis</i> (Slender Naiad), <i>Hamatocaulis vernicosus</i> (Slender Green Feather-moss).		
--	--	--

	Likelihood of significant effects from the proposed development (alone): Y	
Williamstown Turloughs SAC (002296) Turloughs	Direct: None Indirect: Negative impacts on water quality due to construction and operational emission including pollution of groundwater.	Direct: None Indirect: Negative affect on habitat quality and undermine conservation objectives related to water quality.
	Likelihood of significant effects from the proposed development (alone): Y	
Lough Corrib SPA (004042) Pochard (<i>Aythya ferina</i>), Tufted Duck (<i>Aythya fuligula</i>), Common Scoter (<i>Melanitta nigra</i>), Hen Harrier (<i>Circus cyaneus</i>), Coot (<i>Fulica atra</i>), Golden Plover (<i>Pluvialis apricaria</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Common Gull (<i>Larus canus</i>), Common Tern (<i>Sterna Hirundo</i>), Arctic Tern (<i>Sterna paradisaea</i>), Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>), Shoveler (<i>Spatula</i>	Direct: None Indirect: Negative impacts on water quality due to construction and operational emission including pollution of groundwater.	Direct: None Indirect: Negative affect on habitat quality and undermine conservation objectives related to water quality.

clypeata), Gadwall (Mareca strepera), Wetland and Waterbirds		
	Likelihood of significant effects from the proposed development (alone): Y	
Step 4 Conclude of the proposed development could result in likely significant effects on a European site Based on the information provided in the screening report, site visit, review of conservation objectives and support documentation, I consider that in absence of mitigation measures beyond best practice construction methods, the proposed development has the potential to result in significant effects on the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002297) and Lough Corrib SPA (004024). It is not possible to exclude the possibility that the proposed development alone would result in significant effects on the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002297) and Lough Corrib SPA (004024) from impacts on water quality due to construction and operational emission including pollution discharging to groundwater through the freely draining sand and gravel underlying the site and subsequent negative effects on habitat quality and undermine conservation objectives related to water quality. I concur with the applicants' finding that such impacts could be significant in terms of stated conservation objectives of the SAC's and SPA when considered on their own and in combination with other projects and plans in relation to pollution related pressures and disturbance on qualifying interest habitats and species.		
Screening Determination:		

Findings of likely significant effects

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicants, I conclude the proposed development could result in significant effects on the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002297) and Lough Corrib SPA (004024) in view of the conservation objectives of a number of qualifying interests features of those sites.

It is therefore determined that Appropriate Assessment (stage 2) under Section 177V of the Planning and Development Act 2000 (as amended) of the proposed development is required.

Appendix 2

Stage 2 Appropriate Assessment

The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177V [or S 177AE] of the Planning and Development Act 2000 (as amended) are considered fully in this section.

Taking account of the preceding screening determination, the following is an appropriate assessment of the implications of the proposed quarry for the extraction of sand in a phased basis (three phases) over an area of c. 6.2 hectares by an average depth of 3m from existing ground levels, in view of the relevant conservation objectives of the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloughs SAC (002297) and Lough Corrib SPA (004024) based on scientific information provided by the applicant.

The information relied on includes the following:

9 Natura Impact Statement prepared by MKO Planning and Environmental Consultants.

10 Environmental Impact Assessment Report prepared by MKO Planning and Environmental Consultants

I am satisfied that the information provided is adequate to allow for Appropriate Assessment. I am satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity area included and assessed for effectiveness.

Submissions/observations

European sites

Levally Lough SAC (000295),

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Water quality degradation (construction, operation, decommissioning)

Qualifying Interest features
likely to be affected

Conservation Objectives
Targets and attributes
(as relevant summary)

Potential adverse effects

Mitigation measures
(summary)

Turloughs	Maintain favourable conservation condition. Habitat Area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls Implementation of Environmental Management Plan
-----------	--	--	--

Assessment of issues that could give rise to adverse effects.

(1) Water quality degradation

Good water quality is necessary to achieve the conservation objectives of the SAC. Water quality degradation is the main risk from unmanaged site works where pollutants during construction, operational and decommissioning phase reach groundwater due to the freely draining sands and gravels underlying the site, with the site and the SAC underlain by the same groundwater body.

Mitigation measures and conditions

The focus of mitigation measures proposed are at preventing release of pollutants, sediments, nutrients and silt into surface water and receiving watercourses during construction and operational phases. Water quality mitigation measures are set out

in Section 6.3.1.1.1. of the NIS and within EIAR Chapter 8 (Hydrology and Hydrogeology) and Environmental Management Plan (EMP) (NIS Appendix 3 and EIAR Appendix 4-2).

- Site set up including site compound for storage of construction materials and fuel.
- Cement based products control measures during the construction/site enabling phase.
- Soil control measures.
- Pollution prevention measures including spill prevention measures and surface water management.
- Earthworks depth will not reach bedrock and on-site management of spoil/fines.
- Refuelling and Hydrocarbon management.
- Waste management.
- Wastewater disposal.
- Following of applicable guidance.

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected aquatic species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Planning condition? or the Inspectors Report.

In-combination effects

As set out above, the NIS has carried out an assessment of the proposed project and has therefore, considered the in-combination effects with the other sand and gravel quarries in the area and the permitted Clonberne Wind Farm proposal to the southeast. An assessment of cumulative effects with other plans and projects has been carried out in Section 8 of the NIS. The NIS concluded that, subject to implementation of mitigation measures, that no potential for in combination effects were identified. I have reviewed the details of these projects, plans and policies which were identified in Chapter 8 of the applicant's NIS. I am satisfied that in-combination effects have been assessed adequately in the NIS. The proposed development has been assessed as part of the overall Proposed Project, and no other plans and projects could combine to generate significant effects when mitigation measures are considered. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures that the proposed development alone, or in combination with the overall Proposed Project and other plans and projects, will not adversely affect the integrity of the Levally Lough SAC.

Based on the information provided, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the Levally Lough SAC. No direct impacts are predicted. Indirect impacts would be temporary in nature and mitigation measures are described to prevent ingress of construction and operational related pollutants. Monitoring measures are also proposed to ensure compliance and effective management of measures. I am satisfied that the mitigation measures

proposed to prevent such effects have been assessed as effective and can be implemented. No significant in combination effects are predicted.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of Conservation objectives of the Levally Lough SAC. Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Corrib SAC (000297),

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Water quality degradation (construction, operation, decommissioning)

Qualifying Interest features likely to be affected	Conservation Objectives Targets and attributes (as relevant summary)	Potential adverse effects	Mitigation measures (summary)
Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]	Restore favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls

			Implementation of Environmental Management Plan
Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	Restore favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	Restore favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Water courses of plain to montane levels with the Ranunculion fluitantis and	Maintain favourable conservation condition. Habitat area.	Negative affect on habitat quality and undermine	As above.

Callitricho-Batrachion vegetation [3260]	Area stable or increasing.	conservation objectives related to water quality.	
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Active raised bogs [7110]	Restore favourable conservation condition. Habitat area. Restore the area of active raised bog to 78.8ha.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

Degraded raised bogs still capable of natural regeneration [7120]	The long-term aim for Degraded raised bogs still capable of natural regeneration is that its peat-forming capability is re-established; therefore, the conservation objective for this habitat is inherently linked to that of Active raised bogs (7110) and a separate conservation objective has not been set in Lough Corrib SAC	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Depressions on peat substrates of the Rhynchosporion [7150]	Depressions on peat substrates of the Rhynchosporion is an integral part of good quality Active raised bogs (7110) and thus a	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

	separate conservation objective has not been set for the habitat in Lough Corrib SAC		
Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Alkaline fens [7230]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

Limestone pavements [8240]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Not at risk. Rational for exclusion, no potential to undermine any conservation objective given proximity of the project to the designated site and the location of habitat for the qualifying interest.	
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls Implementation of Environmental Management Plan
Bog woodland [91D0]	Maintain favourable conservation condition. Habitat area. Area stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	Restore favourable conservation condition. Distribution. Maintain at 9.1km. See Map 9.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Austropotamobius pallipes (White-clawed Crayfish) [1092]	Maintain favourable conservation condition. Distribution: rivers No reduction from baseline. See map 10.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Petromyzon marinus (Sea Lamprey) [1095]	Restore favourable conservation condition. Distribution: extent of anadromy. Greater than 75% of main stem length of rivers accessible form estuary.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

Lampetra planeri (Brook Lamprey) [1096]	Maintain favourable conservation condition. Distribution Access to all watercourses down to first order streams.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Salmo salar (Salmon) [1106]	Maintain favourable conservation condition. Distribution: extent of anadromy. 100% of river channels down to second order accessible from estuary.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.
Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]	Restore favourable conservation condition. Population per roost. Minimum number of 100 bats for summer roost (roost id. 217 in NPWS database). See map 11.	Not at risk. Rational for exclusion, no potential to undermine any conservation objective given proximity of the project to the designated site and the	

		habitat for the qualifying interest.	
Lutra lutra (Otter) [1355]	Maintain favourable conservation condition. Distribution. No significant decline.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls Implementation of Environmental Management Plan
Slender Green Feather-moss Drepanocladus vernicosus [1393]	Maintain favourable conservation condition. Distribution of populations. No decline.		As above.
Najas flexilis (Slender Naiad) [1833]	Restore favourable conservation condition. Population extent. Restore the spatial extent of Najas flexilis within the lake,	Negative affect on habitat quality and undermine conservation objectives related to water quality.	As above.

	subject to natural processes. See map 13 for known locations.		
Hamatocaulis vernicosus (Slender Green Feather-moss) [6216]			As above.

Assessment of issues that could give rise to adverse effects

(1) Water quality degradation

Good water quality is necessary to achieve the conservation objectives of the SAC. Water quality degradation is the main risk from unmanaged site works where pollutants during construction, operational and decommissioning phase reach groundwater due to the freely draining sands and gravels underlying the site, with the site and the SAC underlain by the same groundwater body.

Mitigation measures and conditions

The focus of mitigation measures proposed are at preventing release of pollutants, sediments, nutrients and silt into surface water and receiving watercourses during construction and operational phases. Water quality mitigation measures are set out in Section 6.3.1.1.1. of the NIS and within EIAR Chapter 8 (Hydrology and Hydrogeology) and Environmental Management Plan (EMP) (NIS Appendix 3 and EIAR Appendix 4-2).

- Site set up including site compound for storage of construction materials and fuel.

- Cement based products control measures during the construction/site enabling phase.
- Soil control measures.
- Pollution prevention measures including spill prevention measures and surface water management.
- Earthworks depth will not reach bedrock and on-site management of spoil/fines.
- Refuelling and Hydrocarbon management.
- Waste management.
- Wastewater disposal.
- Following of applicable guidance.

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected aquatic species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Planning condition? or the Inspectors Report.

In-combination effects

As set out above, the NIS has carried out an assessment of the proposed project and has therefore, considered the in-combination effects with the other sand and gravel quarries in the area and the permitted Clonberne Wind Farm proposal to the southeast. An assessment of cumulative effects with other plans and projects has been carried out in Section 8 of the NIS. The NIS concluded that, subject to implementation of mitigation measures, that no potential for in combination effects were identified.

I have reviewed the details of these projects, plans and policies which were identified in Chapter 8 of the applicant's NIS.

I am satisfied that in-combination effects have been assessed adequately in the NIS. The proposed development has been assessed as part of the overall Proposed Project, and no other plans and projects could combine to generate significant effects when mitigation measures are considered. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures that the proposed development alone, or in combination with the overall Proposed Project and other plans and projects, will not adversely affect the integrity of the Lough Corrib SAC.

Based on the information provided, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the Lough Corrib SAC. No direct impacts are predicted. Indirect impacts would be temporary in nature and mitigation measures are described to prevent ingress of construction and operational related pollutants. Monitoring measures are also proposed to ensure compliance and effective management of measures. I am satisfied that the mitigation measures proposed to prevent such effects have been assessed as effective and can be implemented. No significant in combination effects are predicted.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of Conservation objectives of the River Barrow and River Nore SAC.

Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Williamstown Turloughs SAC (002296)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Water quality degradation (construction, operation, decommissioning)

Qualifying Interest features likely to be affected	Conservation Objectives Targets and attributes (as relevant summary)	Potential adverse effects	Mitigation measures (summary)
Turloughs [3180]	To restore favourable conservation condition. Habitat area. Area stable at c.110ha or increasing, subject to natural processes. See map 2.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls Implementation of Environmental Management Plan

Assessment of issues that could give rise to adverse effects

(2) Water quality degradation

Good water quality is necessary to achieve the conservation objectives of the SAC. Water quality degradation is the main risk from unmanaged site works where pollutants during construction, operational and decommissioning phase reach groundwater due to the freely draining sands and gravels underlying the site, with the site and the SAC underlain by the same groundwater body.

Mitigation measures and conditions

The focus of mitigation measures proposed are at preventing release of pollutants, sediments, nutrients and silt into surface water and receiving watercourses during construction and operational phases. Water quality mitigation measures are set out in Section 6.3.1.1.1. of the NIS and within EIAR Chapter 8 (Hydrology and Hydrogeology) and Environmental Management Plan (EMP) (NIS Appendix 3 and EIAR Appendix 4-2).

- Site set up including site compound for storage of construction materials and fuel.
- Cement based products control measures during the construction/site enabling phase.
- Soil control measures.
- Pollution prevention measures including spill prevention measures and surface water management.
- Earthworks depth will not reach bedrock and on-site management of spoil/fines.
- Refuelling and Hydrocarbon management.
- Waste management.

- Wastewater disposal.
- Following of applicable guidance.

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected aquatic species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Planning condition? or the Inspectors Report.

In-combination effects

As set out above, the NIS has carried out an assessment of the proposed project and has therefore, considered the in-combination effects with the other sand and gravel quarries in the area and the permitted Clonberne Wind Farm proposal to the southeast. An assessment of cumulative effects with other plans and projects has been carried out in Section 8 of the NIS. The NIS concluded that, subject to implementation of mitigation measures, that no potential for in combination effects were identified.

I have reviewed the details of these projects, plans and policies which were identified in Chapter 8 of the applicant's NIS.

I am satisfied that in-combination effects have been assessed adequately in the NIS. The proposed development has been assessed as part of the overall Proposed Project, and no other plans and projects could combine to generate significant effects when mitigation measures are considered. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures that the proposed development alone, or in combination with the overall Proposed Project and other plans and projects, will not adversely affect the integrity of the Williamstown Turlough SAC.

Based on the information provided, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the Williamstown Turlough SAC. No direct impacts are predicted. Indirect impacts would be temporary in nature and mitigation measures are described to prevent ingress of construction and operational related pollutants. Monitoring measures are also proposed to ensure compliance and effective management of measures. I am satisfied that the mitigation measures proposed to prevent such effects have been assessed as effective and can be implemented. No significant in combination effects are predicted.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of Conservation objectives of the River Barrow and River Nore SAC.

Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Corrib SPA (004042)

Summary of Key issues that could give rise to adverse effects (from screening stage): (i) Water quality degradation (construction, operation, decommissioning)			
Qualifying Interest features likely to be affected	Conservation Objectives Targets and attributes (as relevant summary)	Potential adverse effects	Mitigation measures (summary)
Pochard (<i>Aythya ferina</i>) [A059]	To restore favourable conservation condition. Winter population trend. Long term winter population trend is stable or increasing.	Negative affect on habitat quality and undermine conservation objectives related to water quality.	NIS Section 6.3.1.1.1. Pollution control measures Application of industry standard controls Implementation of Environmental Management Plan
Tufted Duck (<i>Aythya fuligula</i>) [A061]	To restore favourable conservation condition. Winter population trend. Long term winter population trend is stable or increasing.	As above.	As above.
Common Scoter (<i>Melanitta nigra</i>) [A065]	Maintain favourable conservation condition.	As above.	As above.

	Breeding population trend. Long term trend stable or increasing.		
Hen Harrier (<i>Circus cyaneus</i>) [A082]	Restore favourable conservation condition. Roost attendance; individual hen harriers. Long term winter population trend is stable or increasing.	As above.	As above.
Coot (<i>Fulica atra</i>) [A125]	Restore favourable conservation condition. Winter population trend. Long term population trend is stable or increasing.	As above.	
Golden Plover (<i>Pluvialis apricaria</i>) [A140]	Maintain favourable conservation condition. Winter population trend.	As above.	As above.

	Long term winter population trend is stable or increasing.		
Black-headed Gull (Chroicocephalus ridibundus) [A179]	Restore favourable conservation condition. Breeding population size. Long term winter population trend is stable or increasing.	As above.	As above.
Common Gull (Larus canus) [A182]	Restore favourable conservation condition. Breeding population size. Long term winter population trend is stable or increasing.	As above.	As above.
Common Tern (Sterna hirundo) [A193]	Restore favourable conservation condition. Breeding population size.	As above.	As above.

	Long term winter population trend is stable or increasing.		
Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Restore favourable conservation condition. Breeding population size. Long term winter population trend is stable or increasing.	As above.	As above.
Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	Restore favourable conservation condition. Winter population trend. Long term winter population trend is stable or increasing.	As above.	As above.
Shoveler (<i>Spatula clypeata</i>) [A857]	Restore favourable conservation condition. Winter population trend.	As above.	As above.

	Long term winter population trend stable or increasing.		
Gadwall (<i>Mareca strepera</i>) [A889]		As above.	As above.
Wetland and Waterbirds [A999]	Maintain favourable conservation condition. Wetland habitat area. No significant loss to wetland habitat within the SPA, other than that occurring from natural patterns of variation.	As above.	As above.

Assessment of issues that could give rise to adverse effects.

(3) Water quality degradation

Good water quality is necessary to achieve the conservation objectives of the SAC. Water quality degradation is the main risk from unmanaged site works where pollutants during construction, operational and decommissioning phase reach groundwater due to the freely draining sands and gravels underlying the site, with the site and the SAC underlain by the same groundwater body.

Mitigation measures and conditions

The focus of mitigation measures proposed are at preventing release of pollutants, sediments, nutrients and silt into surface water and receiving watercourses during construction and operational phases. Water quality mitigation measures are set out in Section 6.3.1.1.1. of the NIS and within EIAR Chapter 8 (Hydrology and Hydrogeology) and Environmental Management Plan (EMP) (NIS Appendix 3 and EIAR Appendix 4-2).

- Site set up including site compound for storage of construction materials and fuel.
- Cement based products control measures during the construction/site enabling phase.
- Soil control measures.
- Pollution prevention measures including spill prevention measures and surface water management.
- Earthworks depth will not reach bedrock and on-site management of spoil/fines.
- Refuelling and Hydrocarbon management.
- Waste management.
- Wastewater disposal.
- Following of applicable guidance.

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected aquatic species and by arresting these pathways or reducing possible effects to a non-significant level,

adverse effects can be prevented. Mitigation measures related to water quality are captured in planning conditions or the Inspectors Report.

In-combination effects

As set out above, the NIS has carried out an assessment of the proposed project and has therefore, considered the in-combination effects with the other sand and gravel quarries in the area and the permitted Clonberne Wind Farm proposal to the southeast. An assessment of cumulative effects with other plans and projects has been carried out in Section 8 of the NIS. The NIS concluded that, subject to implementation of mitigation measures, that no potential for in combination effects were identified.

I have reviewed the details of these projects, plans and policies which were identified in Chapter 8 of the applicant's NIS.

I am satisfied that in-combination effects have been assessed adequately in the NIS. The proposed development has been assessed as part of the overall Proposed Project, and no other plans and projects could combine to generate significant effects when mitigation measures are considered. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures that the proposed development alone, or in combination with the overall Proposed Project and other plans and projects, will not adversely affect the integrity of the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024).

Based on the information provided, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the Lough Corrib SPA. No direct impacts are predicted. Indirect impacts would be temporary in nature and mitigation measures are described to prevent ingress of construction and operational related pollutants. Monitoring measures are also proposed to ensure compliance and effective management of measures. I am satisfied that the mitigation measures proposed to prevent such effects have been assessed as effective and can be implemented. No significant in combination effects are predicted.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of Conservation objectives of the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024). Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Appropriate Assessment Conclusion:

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough

Corrib SPA (004024); in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U was required.

Following an examination, analysis and evaluation of the NIS all associated material submitted with application, and taking into account submissions on nature conservation, I consider that adverse effects on site integrity of the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024) can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

11 A full and detailed assessment, including information presented in the Environmental Impact Assessment Report and supplementary information submitted by the applicant, of the proposed development including proposed mitigation measures.

12 Effectiveness of mitigation measures proposed including supervision and monitoring and integration into EMP ensuring smooth transition of obligations to eventual contractor.

13 Application of planning conditions to ensure application of these measures.

14 The proposed development will not affect the attainment of conservation objectives for the Levally Lough SAC (000295), Lough Corrib SAC (000297), Williamstown Turloguhs SAC (002296) and Lough Corrib SPA (004024).