CHAPTER 15

MATERIAL ASSETS

JUNE 2025

QUARRY CONSULTING

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CHAPTER 15: Material Assets

Introduction

15.1 The purpose of this chapter is to evaluate the potential impact of the proposed development on Material Assets.

15.2 Material assets of natural origin and the existing quality of natural resources such as land, soil & geology, water, air and landscape are discussed in depth in the Chapters 7, 8, 10 and 12 of the EIAR. Material assets of human origin such as roads and traffic, archaeological /architectural heritage are discussed in Chapters 13, and 14.

15.3 The material assets of human origin that are included in this assessment comprise:

- Land Use.
- Property.
- Transport Network.
- Recreational Facilities & Amenities.
- Public Utilities.

15.4 The material assets of natural origin that are included in this assessment comprise:

- Land Resources.
- Geological Resources.
- Natural Resources.
- Raw Materials & Waste.

15.5 The Chapter considers the effects on material assets and not the people using the assets. People along with issues and impacts are discussed in Chapter 5 (Population and Human Health).

Professional Competence

15.6 Quarry Consulting undertook the impact assessment presented in this chapter on behalf of Mortimer Quarries Ltd.

15.7 This chapter and the associated assessment has been completed by Irene Curran who is a chartered town planning consultant (MRTPI) with over 20 years' experience. Irene's qualifications are as follows:

- BSc Environmental Science (Honours) – University of Limerick – 1997.
- MSc Town and Country Planning (Distinction) – Queens University Belfast – 2000.
- Dip Field Ecology - University College Cork – 2014.

Legislative and Policy Context

Relevant Legislation

15.8 The European Union Directive 85/337/EC required that certain private and public projects which are likely to have significant resultant environmental impacts are subject to a formalised Environmental Impact Assessment prior to their consent. This Directive was subsequently amended by the EU through three amendments: 97/11/EC, 2003/4/EC and 2009/31/EC and

then codified in Directive 2011/92/EU. Subsequently, on 16 April 2014, Directive 2011/92/EU was amended by Directive 2014/52/EU. Directive 2011/92/EU, as amended by Directive 2014/52/EU, will be hereafter referred to as the 'EIA Directive'.

15.9 Article 3 of the EIA Directive sets out the factors that should be identified, described and assessed in terms of direct and indirect significant effects of a project. Material Assets are included as one of these factors. Annex IV of the EIA Directive sets down the minimum information to be supplied in an EIAR and also makes specific reference to material assets as a factor that should be described if it is likely to be significantly affected by the project.

15.10 The 2014/52/EU Directive was transposed into Irish law through European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) which amended the Planning and Development Act, 2000, and the Planning and Development Regulations, 2001.

Relevant Policy & Guidelines

15.11 There is no specific Irish guidance for the assessment of material assets in the context of EIA. The 2015 EPA Advice Notes for Preparing Environmental Impact Statements defined Material Assets as "resources that are valued and that are intrinsic to specific places". The EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022), discuss material assets as follows:

> "*In Directive 2011/92/EU this factor included architectural and archaeological heritage. Directive 2014/52/EU includes those heritage aspects as components of cultural heritage. Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes transport infrastructure. Sealing of agricultural land and effects on mining or quarrying potential come under the factors of land and soils.*"

15.12 The EPA Guidelines (2022) lists three broad headings under which Material Assets should be evaluated. These are set out below, with the "typical topics" associated with those headings:

- Roads & Traffic – Construction Phase, Operational Phase, Unplanned Events (i.e. Accidents).
- Built Services – Electricity, Telecommunications, Gas, Water Supply Infrastructure, Sewerage.
- Waste Management – Construction Waste, Operational Waste.

15.13 The 2017 EC Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report, includes a review checklist, of which 2.13 and 3.14 relate to Material Assets:

> *2.13. Have any material assets in that area that may be affected by the Project been described? (including buildings, other structures, mineral resources, water resources).*
>
> *3.14. Have the direct, primary effects on material assets and depletion of natural resources (e.g. fossil fuels, minerals) been described?*

15.14 The effects of the proposed development on the Material Assets are assessed in compliance with the EIAR Guidelines as outlined in Chapter 2 (EIA Report Methodology).

Study Area

15.15 The site is within the Municipal District of Tuam, in the Tuam Local Electoral Area (LEA) and within ClareTuam Electoral Division (ED). The following Electoral Divisions (ED's) are within a 5km radius of the application site, these Electoral Divisions have been selected as the study area, unless stated otherwise in this chapter:

- ClareTuam
- Killower
- Cummer
- Tuam Rural
- Belclare
- Beaghmore
- Kilcoona

Sources of Information

15.16 A desk-top study of the proposed development site and the surrounding study included consultation with publicly available environmental and planning datasets:

- Environmental Protection Agency database (https://gis.epa.ie/EPAMaps/)
- Geological Survey of Ireland database (www.dcenr.maps.arcgis.com)
- Ordnance Survey Ireland (https://store.osi.ie/ & http://map.geohive.ie/mapviewer.html)
- Catchments website (https://www.catchments.ie/maps/)
- Galway County Council Planning database (https://www.eplanning.ie/mayocc/searchtypes)
- Property Registration Authority (PRA) land registry services (https://www.landdirect.ie/)

3.1. Site visits undertaken in September 2024 and April 2025 were used to verify the findings of the desk study and to obtain an understanding of the site and the wider study area.

Identification and Description of Potential Effects

15.17 The characteristics of the proposed development were considered and the changes occurring as a result of aspects of the construction, operation and decommissioning of the proposed development were identified. The impact of these effects on material assets (beneficial and adverse) were consequently identified and assessed.

15.18 The criteria used to describe the predicted effects across land use, social and health considerations are adapted from Table 3.4 of the EPA Guidelines (EPA, 2022).

Table 15.1
Description of Effects

Description of Effects		
Quality of Effects	Positive Effects	A change which improves the quality of the environment (for example, by increasing species diversity, or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	Neutral Effects	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative/Adverse Effects	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance).
Extent and Context of Effects	Extent	Describe the size of the area, the number of sites and the proportion of a population affected by an effect.
	Context	Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Probability of Effects	Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration & Frequency	Momentary Effects	Effects lasting from seconds to minutes.
	Brief Effects	Effects lasting less than a day.
	Temporary Effects	Effects lasting less than a year.
	Short-term Effects	Effects lasting one to seven years.
	Medium-term Effects	Effects lasting seven to fifteen years.
	Long-term Effects	Effects lasting fifteen to sixty years.
	Permanent Effects	Effects lasting over sixty years.
	Reversible Effects	Effects that can be undone, for example through remediation or restoration.
	Frequency of Effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).
Direct/Indirect	Direct Effects	Effects that result directly from the proposed development or project.
	Indirect Effects	Defined by the EC as 'Impacts on the environment, which are not a direct result of the project, often produced away from (the site) or as a result of a complex pathway.'
Cumulative Effects	Cumulative Effects	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects

15.19 The assessment process evaluates how the proposed development impacts on baseline environmental and social factors and considers whether the effects that are associated with positive or negative outcome for the material assets of natural and human origin. The significance of an effect is informed by the description of the effects.

15.20 Table 15.2 below provides the significance criteria that were used to determine the significance of an effect on material assets excluding materials and waste (based on Table 3.4 of the EPA Guidelines (EPA, 2022)).

Table 15.2
Significance Criteria

Description of Significance of Effects		
Significance	Imperceptible	An effect capable of measurement but without significant consequences.
	Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
	Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant Effects	An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.
	Very Significant	An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
	Profound	An effect which obliterates sensitive characteristics.

15.21 For the significance of effects associated with imported materials and waste, in addition to the EPA EIAR Guidelines (EPA 2022), the IEMA Guide to: Materials and Waste in Environmental Impact Assessment (IEMA 2020) (hereafter referred to as the IEMA Guidance) was used. Table 15.3 sets out a sensitivity value, Table 15.4 sets out a magnitude value and Table 15.5 evaluates the significance based on these values.

Table 15.3
Sensitivity Criteria – Materials (IEMA 2020)

Value	Description On balance, the key materials required for construction of a development….
Very High	Are known to be insufficient in terms of production, supply and / or stock; and / or Comprise no sustainable features and benefits compared to industry-standard materials*.
High	Are forecast (through trend analysis and other information) to suffer from some potential issues regarding supply and stock; and / or Are available comprising some sustainable features and benefits compared to industry-standard materials*.
Medium	Are forecast (through trend analysis and other information) to suffer from some potential issues regarding supply and stock; and / or Are available comprising some sustainable features and benefits compared to industry-standard materials*.

Low	Are forecast (through trend analysis and other information) to be generally free from known issues regarding supply and stock; and / or Are available comprising a high proportion of sustainable features and benefits compared to industry-standard materials*.
Negligible	Are forecast (through trend analysis and other information) to be free from known issues regarding supply and stock; and / or Are available comprising a very high proportion of sustainable features and benefits compared to industry-standard materials*.
*Subject to supporting evidence, sustainable features and benefits could include, for example, materials or products that: comprise reused, secondary or recycled content (including excavated and other arisings); support the drive to a circular economy; or in some other way reduce lifetime environmental impacts.	

Table 15.4: Magnitude criteria – Materials (IEMA 2020)

Value	Description The assessment is made by determining whether through a development, the consumption of…
Major	…one or more materials is >10% by volume of the regional* baseline availability
Moderate	…one or more materials is between 6-10% by volume of the regional* baseline availability
Minor	…one or more materials is between 1-5% by volume of the regional* baseline availability
Negligible	…no individual material type is equal to or greater than 1% by volume of the regional* baseline availability
No change	…no materials are required
* or where justified, national.	

Table 15.5: Determining Significance – Materials (IEMA 2020)

		Magnitude of Impact				
		No Change	Negligible	Minor	Moderate	Major
Sensitivity (or Value) of Receptor	Very High	Neutral	Slight	Moderate or Large	Large or Ver Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Baseline Conditions – Material Assets of Human Origin

Land Use

15.22 The site is located in the townland of Cartron, Belcare, Co. Galway, situated approximately 5.6km south-west of Tuam and 10km north-east of Headford, while Galway is 20km south of the site.

15.23 The site is located to the south of the R333 and north of the L2212 from which access is provided via an unnamed local road approximately 600m in length. In the vicinity of the site the L2212 comprises an unmarked single carriage road with an 80km/hr speed limit. The L2212 joins the R333 at a T-junction approximately 1.5km north-east of the site.

15.24 The application site is comprised of an existing operational quarry, which is broadly L-shaped, with a total site area of approximately 16.3 ha. The site is bounded to the south-west by a minor road, to the south-east by agricultural land, to the north-west by an area of woodland and to the north-east by a neighbouring quarry operated by McTigue Quarries Ltd.

15.25 Beyond the site, the landscape is rural in character, consisting of predominately agricultural land enclosed with stone walls, with patches of bog, scrubland and woodland, most notable Knockmaa Wood immediately west of the site.

15.26 The site is situated between the 60m and 90m contour lines, with higher ground immediately west of the application site, at Knockmaa (167m above Ordnance Datum (OD)) and to the north-east at Knockacarrigeen (110m above OD).

15.27 Residences within the general area typically consist of one-off rural houses and ribbon development along the local road network. There are no properties within 400m of the extraction area, the nearest properties to the application site comprise a detached farm house approximately 590m to the north of the site and a series of dwellings on the L2212 south-west of the site. There are approximately 56 dwellings within 1km of the quarry (Figure 15.1). The closest settlement to the site is the village of Belclare, which is situated approximately 1.2km north of the site.

15.28 There are no surface water features in the immediate vicinity of the site, the nearest water course comprises the Glennafosha, stream, approximately 3km east of the site The Glennafosha stream is a tributary of Clare River.

15.29 The site situated between the 60m and 90m contour lines, with higher ground immediately west of the application site, at Knockmaa (167m above Ordnance Datum (OD)) and to the north-east at Knockacarrigeen (110m above OD). Other than these highpoints, the landscape is broad and open, with expansive views available from the higher points.

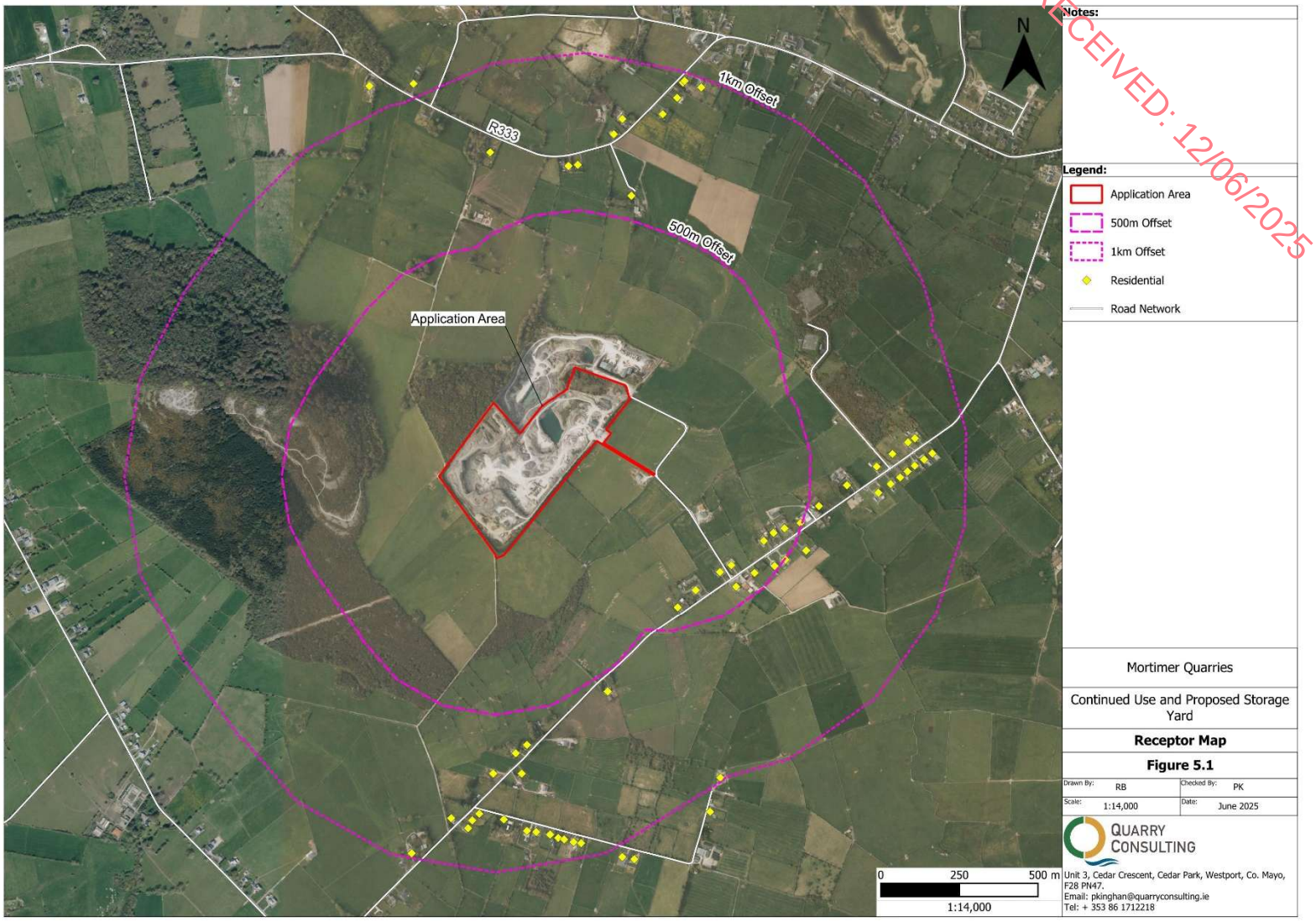

Figure 15.1: Local Receptors

Property

15.30 Mortimer Quarries Ltd. is the owner of the site on which the proposed development will be located. A summary of the planning history of the site is provided below:

- 21442: Provision of a steel frame and cladding to cover existing aggregate stock bays for environmental purposed.2. the provision of a steel frame and cladding around the existing fixed plant (including lime crusher) for environmental purposed. the proposed development is ancillary to the main quarry which was previously approved under planning reference 06/2275 and An Bord Pleanála reference PL.07.222783. Conditional 17/05/2021
- 20419: for the construction of a Concrete Batching Plant on and adjacent to a Quarry site previously approved under Planning Reference 06/2275 and An Bord Pleanála Reference PL.07.222783. The proposed development is ancillary to the main Quarry and it will include the following; Washdown/Surface Water Collection System and Washwater Recovery Tanks. Concrete Block Making and Storage Facility and all Associated Ancillary Site Services. The Planning Application is accompanied by a Natura Impact Statement (NIS). Conditional 08/07/2020. Appealed 04/08/202. Approved 08/02/2021.
- 191964: for development consisting of the installation of a substation building comprising of an ESB supply room and 2 no. switch rooms (c. 70 sq.m) within a planning application area of c.0.007 Ha. Gross floor space of proposed works: 70 sqm. Granted (Conditional) 30/03/2020.
- 177083: To construct a concrete batching plant on and adjacent to a quarry site previously approved under planning reference 06/2275 and An Bord Pleanála reference PL.07.222783. The proposed development is ancillary to the main quarry and it will include the following: washdown/surface water collection system and washwater recovery tanks; aggregate storage bins; concrete block-making and storage facilities and all ancillary services. Conditional 20/07/2017.
- 17512: For the removal of an existing office and staff facilities building and the replacement of same with a single storey prefabricated modular building (to be used for staff facilities building) and for the provision of a staff and visitors carpark to serve the existing quarry. The development will connect to the existing treatment plant constructed under quarry planning references 06/2275 (An Bord Pleanála reference PL.07.222783). Gross floor space of proposed work: 173.1sqm). Conditional 12/06/2017.
- 15104: for the construction of an Asphalt Batching Plant within the quarry site previously approved under planning reference 06/2275 and An Bord Pleanála reference PL.07.222783. The proposed development will be ancillary to the main quarry and it will provide the following: 2 weigh bridges and associated single storey weigh station office, 1 single bay open aggregate bay, 1 five-bay open aggregate bay and 1 three-bay covered aggregate storage bay. The asphalt plant will consist of all fixed and mobile plant-associated with the following system; cold feed system, drying and heating system, dust collection system, mixing tower, hot mix storage system, filter feed system, bitumen supply system and a control cabin. There will be a 30.0m high stack associated with the plant. The plant will be located on the existing quarry floor level. There will also be advanced warning signs on the public access road (gross floor space 8sqm). Conditional 01/04/2015.
- 141295: For the construction of a shed within the existing quarry site for the purpose of maintaining plant associated with the operation of the quarry. The development will also consist of the provision of a concrete apron around the proposed shed, incorporating a surface water collection system and an oil interceptor. Previous planning reference

06/2275 and 06/2275 An Bord Pleanála reference PL.07.222783 refer to the quarry. Groos floor space 263.4sqm. Conditional 29/01/2015

- 06/2275: for quarrying of limestone. Conditional 22/03/2007. Appealed (An Bord Pleanála reference PL.07.222783) 10/04/2007. Approved 7/05/2008.

Transport Network

15.31 Within the semi-rural setting surrounding the application site, the road infrastructure plays a crucial role in facilitating transportation and connectivity. The network of roads consists of various types, including local roads that serve nearby communities, regional roads that connect towns and villages, and national roads that form important transportation arteries.

15.32 Of particular significance is the N83 road, which is situated approximately 2.5km to the east of the quarry entrance, while the M18 is located 5.3km east of the site. Both routes serve as major thoroughfares linking the town of Tuam with Galway City and beyond. Their strategic location provide convenient access to and from the application site, allowing for efficient transportation of materials and products.

15.33 The site is located to the south of the R333 and north of the L2212 from which access is provided via an unnamed local road approximately 600m in length. In the vicinity of the site the L2212 comprises an unmarked single carriage road with an 60km/hr speed limit. The L2212 joins the R333 at a T-junction approximately 1.5km north-east of the site.

15.34 Internally, the site operates a number of haul roads which provide a dedicated pathway for vehicles involved in the quarrying operations. These internal haul roads ensure smooth and controlled movement of vehicles, optimising the efficiency of operations.

15.35 Public transportation in the area is relatively limited, however Bus Eireann operates bus service no. 428 from Galway City to Tuam which runs along the N83 east of the site. The nearest train station is located in Galway City.

Recreational Facilities & Amenities

15.36 County Galway has an extensive network of trails which provide a recreational resource for both visitors and locals. The county has an extensive network of trails which provide a recreational resource for both visitors and locals. Much of the trails are focused on the west of the County, including The Western Way and Connemara National Park, however the following trails and loop walks are noted in the study area.

- Knockmaa Nature Reserve.

15.37 Other recreational and community facilities and amenities are available in the towns of Tuam (6km west of the site) and Headford (10km west of the site). These include GAA clubs (Tuam Stars GAA, Caherlistrane GAA Club), shops, health centre, community hall and churches. Galway City is approximately 22km south of the site.

Public Utilities

Electricity

15.38 The application site benefits from an existing connection to the electricity grid via an overhead line. The following electricity infrastructure is noted in the vicinity of the application site:

- Cloon - Headford 38 kV (immediately south of the application site).
- Cloon - Tuam South - Claregalway 38 kV: 2.6km east of application site.
- Cashla - Cloon 110kV - 4.7km east of application site.

15.39 The nearest high pressure gas pipeline is located approximately 1.7km west of the application site.

Water Supply

15.40 The proposed development will continue to use the existing water management system at the quarry site.

15.41 The proposed site is not located inside any mapped Public Water Supply (PWS) or National Federation Group Water Scheme (NFGWS) groundwater protection zones.

15.42 In addition to the on-site water management system, a public utility in the form of a Uisce Éireann water main, constructed in 1995, traverses the quarry access road and connects to a reservoir at Knockacarigeen, located approximately 1km northeast of the site. The presence of this infrastructure has been considered in both the design and operation of quarry activities to ensure no adverse impact on supply integrity or physical condition. Ongoing blast monitoring confirms that vibration levels remain within safe limits to protect this asset.

Wastewater

15.43 No wastewater collection infrastructure has been identified crossing the application.

Communications Infrastructure

15.44 Communications infrastructure comprise local network wires, cables, poles and masts for the provision of telephone, internet, mobile phone, television and radio services. Communications infrastructure is present throughout the study area.

15.45 There is no telecommunication infrastructure within the application site. The existing quarry benefits from existing telecommunication connections.

Baseline Conditions – Material Assets of Natural Origin

Land Resources

15.46 Existing land resources associated with application site comprise:

- 15.09 hectares which is currently subject to rock extraction to a permitted depth of 33m OD.
- Weighbridge and wheelwash with side and overhead spray bars.
- Office and staff facilities building and carpark provision (Ref. 17512).
- Asphalt plant (Ref. 15104), concrete batching plant (Ref. 20419), maintenance shed (Ref.141295), aggregate shed, ESB substation (Ref. 191964), crushing and screening plant, and stock bays (Ref. 062275 & 21442).
- Associated site infrastructure.

15.47 As stated above, the surrounding area comprises a mix of a mix of agriculture and residential uses, with the N83 and M18 also comprising a dominant feature in the local landscape.

15.48 The site is not located within any designated European sites, however the following designated sites are located in the vicinity of the application site:

- Lough Corrib Special Area of Conservation (SAC) (000297): 3.3 Km.
- Lough Corrib Special Protection Area (SPA) (004042): 8.8Km.
- Shrule Turlough Special Area of Conservation (SAC) (000525): 11 Km.

- Cloughmoyne Special Area of Conservation (SAC) (000479): 13.5 Km.

15.49 The following NHAs and pNHA's are located in the vicinity of the application site, the nearest of which is Knockmaa Hill pNHA, which is 172 m west of the site:

- Knockmaaa Hill (001288): 172m
- Belclare Turlough (000234): 1.3km
- Turlough O'Gall (000331): 2.3km
- Killower Turlough (000282): 2.4km
- Turlough Monaghan (001322): 3.6km
- Lough Hacket (001294): 5.7km

15.50 There are no national parks in the immediate vicinity of the site – the Burren National Park is 42km south of the site, while the Connemara National Park is situated over 50km north-west of the site.

Geological Resources

15.51 The application site is located on top of the Knockmaa Formation which is described by the GSI as being thick bedded pure limestone. As part of the proposed development, rock extraction will be conducted through the use of blasting techniques. The extracted rock will then undergo processing to produce various aggregates that will be either sold in the market or utilised for the manufacturing of concrete and asphalt products.

15.52 According to the Geological Survey of Ireland (GSI) Spatial Resources, the application site is a geological heritage site. The application site falls within the GY083: Knockmaa Quarries Geological Heritage Site. The site is of interest as "*these quarries provide a good representative site displaying the Carboniferous limestone bedrock geology of mid-Galway, with additional features of pre-glacial and karstic interest*". The following additional geological heritage sites are situated within 10km of the application site:

- GY082: Knockmaa
- GY116: Pollnahallia
- GY011: Ballybanagher M17 Road Cut
- GY058: Dunmore Esker
- GY013: Ballyglunin Cave – CGS.
- GY089: Levally Lough
- GY093: Lough Corrib

15.53 The GSI Aggregate Potential Mapping highlights the area as having very high potential for "crushed rock aggregate potential".

Natural Resources

Woodland

15.54 Tree cover on the application site is limited to some field boundaries.

15.55 Beyond the site, the nearest woodland to the site is at Knockmaaa, approximately 172m to the west

Raw Materials

15.56 As the existing use comprises an operational quarry that extracts limestone, it is removing the raw material from its point of origin. The nature of the use is however highly efficient, as all of the resource is either sold directly to the public as building stone or ground limestone or it is used in a range of materials produced at the site including aggregates, blocks, ready mixed concrete and asphalt. Raw materials used (e.g. diesel for machinery) are typical of those uses.

Waste

15.57 The existing / historic use of the site for rock extraction generates very low waste volumes and comprise waste types typical of that use. Almost all products and by-products arising from the aggregate processing have commercial value. Any waste materials from the site are stored, collected, recycled and/or disposed of in accordance with any requirements of Galway County Council.

15.58 Potential waste produced and the measures used to control it are described as follows:

- Scrap metal – these materials are chiefly produced from the maintenance of the possessing plants and can cause a nuisance if allowed to build up in an uncontrolled manner. A designated scrap metal area will be demarcated on site and the build-up of scrap is controlled by the regular removal by licensed scrap metal dealers.
- Used Oil and Oil Filters – any waste oil/oil filters that may arise from servicing of fixed or mobile plant will be removed from the site by a licensed waste contractor.
- Used Batteries – similarly all used batteries will be removed from site for collection and recycling by a licensed waste contractor in accordance with the Waste Management Regulations.
- Domestic Style Waste (Canteen Waste) – domestic waste generated at the offices and employee's facility will be collected by a licensed waste collection contractor.

15.59 The application site currently operates under a Waste Facility Permit (WFP-G-21-0007-02, granted 29/09/2022), which governs the importation and management of permitted and controlled materials for site restoration and recycling activities.

Assessment of Potential Effects – Material Assets of Human Origin

Land Use

Construction Phase

15.60 This stage examines the potential effects of the construction of the proposed storage yard only as all other elements of the development are already in situ and would not have a construction phase.

15.61 The construction of the proposed storage yard would result in the change of land-use from mixed scrubland to a storage yard. The change in land-use would be noticeable, but not incongruous with the present land-use of the site and/or the area.

Land-use	Quality	Negative
	Extent	Block storage yard 1.09ha
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions –operating hours.

	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	1.09ha directly affected by block storage yard. Use is however consistent with adjoining established uses at the site.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The proposed development would not significantly alter the nature of the land-use at the site.

Table 15.6: EPA Description of Effects – Land-use, operational phase

Operational Phase

15.62 As the proposed development comprises the continuation of the existing quarry there would be no discernible change in land-use during the operational phase of the development.

15.63 The proposed development is not predicted to have any impact on the local property values as the area has a long association with quarrying and the quarry is well screened from the majority of residential properties in the area.

Land-use	Quality	Negative
	Extent	16.3ha application site area.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions –operating hours.
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	16.3ha directly affected by quarry related land-uses. Use is however already established at the site.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The proposed development would not significantly alter the nature of the land-use at the site.

Table 15.7: EPA Description of Effects – Land-use, operational phase

Post - Operational Phase

15.64 Following the cessation of operations, the application site will be restored to agricultural land and natural uses. This restoration will involve regrading and reseeding as necessary to support agricultural use with tree and shrub planting to achieve a variety of habitats.

Land-use	Quality	Positive
	Extent	16.3ha application site area.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions –operating hours.
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	16.3ha application site area directly affected.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The proposed development would not significantly alter the nature of the land-use at the site. The use of the land would be altered following restoration with a return to agricultural and natural uses using imported material.

Table 15.8: EPA Description of Effects – Land-use, post-operational phase

Property

Construction Phase

15.65 During the construction phase there is very limited potential for impacts on property. The overall effect is considered to be "not significant" due in part to the short-term duration of the construction, and the relatively small size of the area affected. The effects would be primarily relating to construction traffic causing noise, dust and traffic, however these are not anticipated to above baseline levels and therefore not significant.

Property	Quality	Negative
	Extent	Block storage yard 1.09ha
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions –operating hours.
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	No direct effect on property. Use is consistent with adjoining established uses at the site. Indirect affects associated with noise, vibration and dust are consistent with existing uses and although may extend beyond site boundaries, are unlikely to significantly increase baseline levels. No additional traffic movements.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The construction of the storage yard would not significantly alter emissions from the application site above baseline levels.

Table 15.9: EPA Description of Effects – property - construction phase

Operational Phase

15.66 The site is in the ownership of the applicant therefore third party land is not required. The operation of proposed development would have no effect on property ownership.

15.67 The proposed development is not predicted to have any negative effects on local property values as the area has a long association with extraction which provides a valuable source of direct and in-direct employment in the area, with additional trickle down benefits for the local economy. The proposed development would not introduce any changes that would be perceptible compared to the baseline environment.

15.68 A full assessment/review was carried out on the impact of traffic on the L2212 and R333 and their link capacity (Link Capacity is the assessment of the available carrying capacity of a road based on its characteristics). The assessment concluded that there is significant spare capacity on both routes in all assessment years.

15.69 Emissions in relation to noise, vibration and air will be below recommended guideline values at nearest dwellings.

15.70 It is unlikely that quarrying activity at the application site will negatively impact on the day to day running of the Belclare National School. Both noise and air emissions from traffic using the R333 would constitute the main source of nuisance to the school.

15.71 Chapters 10 and 11 provide additional information in respect of the potential effects on Air and Noise, which have the potential to undermine the residential amenity of neighbouring

properties which could in turn affect property values. These chapters indicated that the associated effects of the proposed development would not be significant.

Property	Quality	Negative
	Extent	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions. Vibration – 1 – 2 times per month.
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	No direct effect on Property. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* Changes would not be perceptive above the baseline levels. The nature or extent of emissions from the application site would not be altered above baseline levels.

Table 15.10: EPA Description of Effects – Property -operational phase

Post Operational Phase

15.72 As stated above, the decommissioning phase comprises the final restoration of the application site. The restoration proposals offer the potential for biodiversity gain at the site.

Property	Quality	Positive
	Extent	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions. Vibration – 1 – 2 times per month.
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.11: EPA Description of Effects – Population, post-operational phase

Transport Network

Construction Phase

15.73 During the construction phase there is very limited potential for impacts on Transport. The overall effect is considered to be "not significant" due in part to the short-term duration of the construction, and to the fact that traffic levels would not increase over baseline levels.

Transport	Quality	Neutral
	Extent	At site access and local road network.
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect at site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The construction of the storage yard would not significantly alter traffic levels from the application site above baseline levels.

Table 15.12: EPA Description of Effects – transport - construction phase

Operational Phase

15.74 Chapter 13 provides a detailed assessment of the effect of the proposed development of the existing transport network and traffic volumes.

15.75 The opening of the M17 Gort to Tuam motorway in 2017 resulted in a decrease in traffic volume on the N83. The N83, which was previously the main route from Tuam to Galway City (formerly part of the N17), experienced reduced traffic after the motorway's construction.

15.76 A full assessment/review was carried out on the impact of traffic on the L2212 and R333 and their link capacity (Link Capacity is the assessment of the available carrying capacity of a road based on its characteristics). The assessment concluded that there is significant spare capacity on both routes in all assessment years.

Transport	Quality	Neutral
	Extent	At site access and local road network.
	Probability	Likely
	Frequency	Daily
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect at site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.13: EPA Description of Effects – Transport, operational phase

Post Operational Phase

15.77 Traffic associated with this stage would be minimal and predominately associated with the removal of equipment from the site.

Transport	Quality	Neutral
	Extent	At site access and local road network.
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect at site access and local road network..
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 5.14: EPA Description of Effects – Transport, post-operational phase

Recreational Facilities & Amenities

Construction Phase

15.78 It is not anticipated that the construction of the proposed storage yard would have any effect on recreational facilities and amenities. The site is distant from the majority of those resources however, the nearest recreational resource; Knockmaa woods is situated approximately 200m west of the proposed storage yard at its nearest point.

15.79 The experience of visitors to Knockmaa woods would be unaltered by the proposed storage yard. The majority of views from within Knockmaa woods are either internal or are focused to the south and therefore away from the application site.

Recreation	Quality	Negative
	Extent	Block storage yard 1.09ha
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions – during operating hours.
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	No direct effect on recreation. Use is consistent with adjoining established uses at the site. Indirect affects associated with noise, vibration and dust are consistent with existing uses and although may extend beyond site boundaries, are unlikely to significantly increase baseline levels. No additional traffic movements associated with construction of block storage yard.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* The construction of the storage yard would not significantly alter the nature or extent of emissions from the application site above baseline levels.

Table 15.15: EPA Description of Effects –Recreation, construction phase

Operational Phase

15.80 As with the Construction Phase of the proposed development, It is not anticipated that the operation of the quarry would have any effect on recreational resources identified above. The site is distant from the majority of those resources however, the nearest recreational resource; Knockmaa woods is situated approximately 200m west of the application site boundary. The existing quarry offers no value for recreational amenity as it comprises mainly private land and it does not contain any paths or recreational facilities.

15.81 The effects of the proposed development would be long-term due to the design life of the proposed development, however the quarrying activity is a long established land use in the area and has not impacted on the tourist amenity of the study area.

15.82 The application site would only be visible from very small parts Knockmaa Woods and existing trees and shrubs will further aid screening as they further mature over time. Noise associated with the continuation of the quarry would be heard from within Knockmaa Woods, however it is unlikely to be of a level that would detract from the visitor's experience. The proposed development would not result in any increase in emissions above baseline levels.

Tou	Quality	Negative

	Extent	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions. Vibration – 1 – 2 times per month.
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	No direct effect on Recreation. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.* Changes would not be perceptive above the baseline levels. The nature or extent of emissions from the application site would not be altered above baseline levels.

Table 15.16: EPA Description of Effects – Recreation, operational phase

Post Operational Phase

15.83 Following the cessation of the proposed works, the appearance of the application site will have altered. These changes will include the removal of any infrastructure and restoring the site to its original agricultural landscape. This restoration will ensure that the site visually integrates with the surrounding landscape, maintaining consistency with adjacent land uses. The restoration would however have no effect on tourism and recreation as the site would remain in private ownership and not open to the public. The outlook of visitors to Knockmaa would improve at the small section of the walking track along which the application site is visible.

Tourism & Recreation	Quality	Positive
	Extent	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions. Vibration – 1 – 2 times per month.
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	16.3ha application site area directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries. Traffic effects would affect the site access and local road network.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.17: EPA Description of Effects – Recreation, post-operational phase

Public Utilities

Construction Phase

15.84 There is no need for the proposed development to be connected to additional public utilities. The existing working quarry is also unlikely to have had any significant impact on the quality or availability of public utilities in the study area. Potential effects of the proposed development on water supplies for users in the surrounding area are considered to be unlikely.

Public Utilities	Quality	Neutral
	Extent	No effect
	Probability	Unlikely
	Frequency	No effect
	Duration	No effect
	Reversibility	No effect
	Direct/Indirect	No effect
	Significance	Imperceptible

Table 15.18: EPA Description of Effects – Public Utilities, construction phase

Operational Phase

15.85 There is no need for the proposed development to be connected to additional public utilities. The existing working quarry is also unlikely to have had any significant impact on the quality or availability of public utilities in the study area. Potential effects of the proposed development on water supplies for users in the surrounding area are considered to be unlikely.

15.86 With respect to the Uisce Eireann mains that runs under the access road to the quarry and the reservoirs at Knockacarigeen, 1km to the northeast of the site, Chapter 8 prepared by Hydro-G indicates that Uisce Eireann personnel were consulted and blast monitoring data was reviewed. Chapter 8 concludes that there are no vibration impacts that could affect the mains or reservoir. The site has operated for almost 20 years and there is no communication from either Galway County Council or Uisce Eireann suggesting any impacts on the 1995 constructed mains and reservoir.

Public Utilities	Quality	Neutral
	Extent	No effect
	Probability	Unlikely
	Frequency	No effect
	Duration	No effect
	Reversibility	No effect
	Direct/Indirect	No effect
	Significance	Imperceptible

Table 15.19: EPA Description of Effects – Public Utilities, operational phase

Post Operational Phase

15.87 The restoration of the site would not have any affect on existing public utilities.

Public Utilities	Quality	Neutral
	Extent	No effect
	Probability	Unlikely
	Frequency	No effect
	Duration	No effect
	Reversibility	No effect
	Direct/Indirect	No effect
	Significance	Imperceptible

Table 15.20: EPA Description of Effects – Public Utilities, post-operational phase

Land Resources

Construction Phase

15.88 Chapter 6 provides a detailed assessment of the effect of the proposed development on biodiversity and Chapter 12 assesses the landscape and visual effects of the proposed development. No significant direct or indirect effects on land resources are anticipated.

15.89 The proposed development will not have any direct or indirect effects on any known cultural heritage sites, archaeological remains, or buildings of heritage significance within the application area or its surrounding area.

Land Resources	Quality	Negative
	Extent	Potential effects associated with dust deposition may extend beyond site boundaries.
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Potential effects associated with dust deposition may extend beyond site boundaries.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.21: EPA Description of Effects – Land resources, construction phase

Operational Phase

15.90 Chapter 6 provides a detailed assessment of the effect of the proposed development on biodiversity and Chapter 12 assesses the landscape and visual effects of the proposed development. No significant direct or indirect effects on land resources are anticipated.

15.91 The proposed development will not have any direct or indirect effects on any known cultural heritage sites, archaeological remains, or buildings of heritage significance within the application area or its surrounding area.

Land Resources	Quality	Negative
	Extent	Potential effects associated with dust deposition may extend beyond site boundaries.
	Probability	Likely
	Frequency	Daily
	Duration	long-term
	Reversibility	Reversible
	Direct/Indirect	Potential effects associated with dust deposition may extend beyond site boundaries.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.22: EPA Description of Effects – Land resources, operational phase

Post Operational Phase

15.92 See Chapter 6 and 12 above, no significant adverse direct or indirect effects on land resources are anticipated. The restoration proposals include opportunities for biodiversity net gain.

Land Resources	Quality	Negative
	Extent	Potential effects associated with dust deposition may extend beyond site boundaries.
	Probability	Likely
	Frequency	Daily
	Duration	short-term
	Reversibility	Reversible
	Direct/Indirect	Potential effects associated with dust deposition may extend beyond site boundaries.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.23: EPA Description of Effects – Land resources, post-operational phase

Geological Resources

Construction Phase

15.93 The proposed development will require the removal of overburden which will be used on the site for landscaped screening berms and retained for site restoration works.

Geology	Quality	Negative
	Extent	1.09ha area directly affected as top-soils and overburden would be removed.
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect on 1.09ha of site
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.24: EPA Description of Effects – Geology, construction phase

Operational Phase

15.94 The operation of the quarry will require the removal of the limestone resource from the site which would be utilised for a range of purposes including as construction aggregates. The removal of the material will have a "permanent" effect on the existing limestone resource, however as this resource is presently sub-surface, the impact of the loss would not be perceptible. Nevertheless, the extracted material will be utilised in the local construction industry, benefiting both private and public sector projects and thereby making a positive contribution to the economy at the local, regional, and national levels.

15.95 To minimise the effect of the proposed development on soil resources, re-fuelling of equipment will take place in designated areas wherever possible. A fuel handling protocol will be put in place to minimise the risk of fuel spills and to advice on actions in the event of spillages.

15.96 The application site lies within the Knockmaa Quarries geological heritage site. The site is recognised as being an existing quarry, the operation of the quarry is therefore not incongruous with the geological heritage site.

Geo	Quality	Negative

	Extent	15.09ha extraction area directly affected as geological resource would be removed. 1.09ha area directly affected by block storage yard as top-soils and overburden would be removed.
	Probability	Likely
	Frequency	Daily
	Duration	Permanent
	Reversibility	Irreversible
	Direct/Indirect	Direct effect 15.09ha extraction area and 1.09 block storage area.
	Significance	*Moderate - An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.*

Table 15.25: EPA Description of Effects – Geology, operational phase

Post Operational Phase

15.97 The restoration of the site would not have any affect on existing geological resources as it is proposed to restore the quarry by importing inert soil and stone into the quarry and to introduce additional planting onto the site. No further disturbance of the sub-surface geology is proposed at this phase.

Geology	Quality	Neutral
	Extent	No effect
	Probability	Unlikely
	Frequency	No effect
	Duration	No effect
	Reversibility	No effect
	Direct/Indirect	No effect
	Significance	Imperceptible

Table 15.26: EPA Description of Effects – Geology, post-operational phase

Natural Resources

Construction Phase

15.98 The potential effect on biodiversity has been evaluated in chapter 6 – Biodiversity. An area of scrub would be removed to accommodate the block storage yard, however the assessment undertaken in Chapter 6 has concluded that the effect is not significant.

Natural Resources	Quality	Negative
	Extent	1.09ha.
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect on 10.9ha of scrub.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences*

Table 15.27: EPA Description of Effects – Natural Resources, Construction phase

Operational Phase

15.99 The operational phase of proposed development would not require the removal of any additional trees, hedgerows or other natural features. There is potential for dust deposition on the remaining trees which could potentially affect their photosynthetic ability. This is

evaluated in chapter 6 Biodiversity. Chapter 6 also examines the potential effects on Knockmaa pNHA and Belclare Turlough pNHA and concludes that no significant effects are likely.

Natural Resources	Quality	Negative
	Extent	Potential effects on noise and atmosphere may extend beyond site.
	Probability	Likely
	Frequency	Daily
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	Potential effects on noise and atmosphere may extend beyond site boundaries.
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.28: EPA Description of Effects – Natural Resources, Operational phase

Post Operational Phase

15.100 The restoration of the site offers potential for biodiversity net gain.

Natural Resources	Quality	Positive
	Extent	16.3ha site area
	Probability	Likely
	Frequency	Daily
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect on 16.3ha site area
	Significance	Not significant - *an effect which causes noticeable changes in the character of the environment but without significant consequences.*

Table 15.29: EPA Description of Effects – Natural Resources, post-operational phase

Raw Materials & Waste

Construction Phase

15.101 The construction phase proposed development will require the construction of a storage yard and relocation of existing sheds. Minimal waste is expected to arise as consequence of this phase as all existing materials would be utlised and all overburden would be stored for use in landscaped berms and as part of the restoration proposals.

Waste Volumes	Quality	Negative
	Extent	County
	Probability	Unlikely that any significant waste will be generated
	Frequency	Daily.
	Duration	Short-term
	Reversibility	Reversible
	Direct/Indirect	Direct effect on capacity of landfill sites
	Significance	Imperceptible (EPA) Neutral (IEMA 2020)

Table 15.30: EPA Description of Effects – Waste, post-operational phase

15.102 The construction phase would not generate a requirement for any significant volumes of materials and the type of operation is consistent with that undertaken at the existing quarry, with similar materials required, e.g. diesel.

Raw Materials	Quality	Negative
	Extent	County
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Irreversible
	Direct/Indirect	Direct effect on supply of materials such as fossil fuels (diesel)
	Significance	Imperceptible (EPA) Neutral (IEMA 2020)

Table 15.31: EPA Description of Effects – Raw Materials, post-operational phase

Operational Phase

15.103 Waste volumes associated with the Operational Phase of the proposed development are anticipated to be very low and significantly less than 0.1% of the available landfill capacity of the Connaught and Ulster Region. There are existing waste management arrangements in place in relation to general waste, ancillary generation of operational waste (e.g. batteries, tyres, waste oil). These arrangements will remain in place during the operational stage.

Waste Volumes	Quality	Negative
	Extent	County
	Probability	Unlikely
	Frequency	Rarely
	Duration	Long-term
	Reversibility	Irreversible
	Direct/Indirect	Direct effect on capacity of landfill sites
	Significance	Imperceptible (EPA) Neutral (IEMA 2020)

Table 15.32: EPA Description of Effects – Waste, operational phase

15.104 Materials such as lubrication oils and fuel oil, will be required during the Operational Phase of the proposed development. The anticipated volumes used on site are predicted to be significantly less than 1% by volume of the regional baseline availability.

15.105 The proposed development will result in the extraction of limestone which is a valuable raw material for the construction industry.

Raw Materials	Quality	Positive
	Extent	County
	Probability	Likely
	Frequency	Daily
	Duration	Long-term
	Reversibility	Irreversible
	Direct/Indirect	Direct effect on supply of limestone aggregates
	Significance	Neutral (IEMA 2020)

Table 15.33: EPA Description of Effects – Raw Materials, operational phase

15.106 The restoration of the proposed development will require minimal raw materials and would generate minimal waste streams. Fertiliser will be utilsed during the re-planting process, however the volumes will be carefully managed to ensure that excessive amounts are not utilised. No other raw materials or waste will be used or generated during the restoration process.

Waste & Raw Materials	Quality	Negative
	Extent	County
	Probability	Likely
	Frequency	Daily
	Duration	Short-term
	Reversibility	Irreversible
	Direct/Indirect	Direct effect on capacity of landfill sites & supply of limestone aggregates.
	Significance	Neutral (IEMA 2020)

Table 15.34: EPA Description of Effects – Waste & Raw Materials, post-operational phase

Cumulative Effects / Synergistic Effects

15.107 In the assessment of cumulative effects other permitted and proposed developments in the surrounding area have been considered where they have the potential to generate cumulative effects with the proposed development. Developments that were already constructed have been excluded as these are already assessed as part of the baseline. Also excluded were small scale developments that would not have the potential to cause cumulative effects. The following developments were short-listed as having the potential to result in cumulative effects:

- 2460013: For the development of a quarry for the extraction of sand in a phased basis over an area of c. 6.2 ha 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 (30 sqm); v. Installation of a wastewater holding tank (63.6 sqm); vi. Installation of a weighbridge and wheel wash; vii. Installation of a new site entrance along with road reprofiling works on the L2232; viii. Installation of a 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 the 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 Natura Impact Statement. Granted (Conditional) 12/09/2024. Appealed 09/10/2024.
- 2461190 for an amendment planning application to the previously granted permission under planning reference 19/1315 (ABP-306685-20). The proposed amendments to the previously consented planning application will comprise the following: Reconfiguration and reduction in the overall length of internal access roads, reduction and relocation in the number of transformer stations, reduction and reconfiguration in

the number of solar PV modules to optimise layout, provision of a spare parts container. Amendments to the consented 38kV on-site substation, control building & compound, relocation of consented site access by circa 440 metres at the southern portion of the site, amendments to the consented grid connection for the completion and installation of 180 metres of 38kV underground electricity cables, and ducts through ESB land to the Cloon 110kV substation Granted (Conditional) 10/01/2025.

- PA07.319307: Proposed no 8 wind turbines and associated works. Laurclavagh and adjacent townlands, Co. Galway. Lodged15/03/2024.

Material Assets of Human Origin

15.108 Planning application 24/60013 is situated over 17km from the application site. If permitted these developments would result in the alteration of the existing land-use or property however, given the distance between the proposals, it is not anticipated that any cumulative effects would occur as a result of the construction or operation of these developments.

15.109 Planning application 24/61190 is situated approximately 7km from the application site, separated by the N83 and M18 motorway. If permitted these developments would result in the alteration of the existing land-use however, given the distance between the proposals, it is not anticipated that any cumulative effects would occur as a result of the construction or operation of these developments.

15.110 Planning application PA07.319307 is situated over 3km from the application site. If permitted these developments would result in the alteration of the existing land-use however, given the distance between the proposals, it is not anticipated that any cumulative effects would occur as a result of the construction or operation of these developments.

15.111 There are no additional cumulative effects of the proposed development with other developments on property. The ownership of the above development would not be affected by the proposed developments.

Material Assets of Natural Origin

15.112 As stated above the above planning applications are distant from the application site. There would therefore be no potential for cumulative effects on material assets of natural original including land, geological or natural resources.

15.113 Materials such as lubrication oils and fuel oil, will be required for all of the developments identified, however the anticipated volumes used on site are predicted to be significantly less than 1% by volume of the regional baseline availability.

Do Nothing Scenario

15.114 Under the 'do-nothing' scenario, Mortimers Quarry would continue to operate the quarry as permitted under *06/2275 An Bord Pleanála reference PL.07.222783*. As required under Condition no. 2 of that grant of permission, operations at the quarry would cease on 7th May 2028 and the site would be restored to agricultural land.

15.115 In the short-term period (up to May 2028), there would be no change in the operations at the site and consequently no changes in emissions to soil, water, air or noise and vibration. In the medium term the quarry would be forced to close and there would be a reduction in emissions associated with the operation of the quarry, which would correspondingly result in a reduction in any potential effects on human receptors.

15.116 However, the opportunities for local employment and the associated revenue within the local economy would not be realised. Furthermore, there would be a reduction in the volume of material available to the construction sector locally. The do-nothing scenario could result in

pressure for alternative, less suitable locations being proposed for quarries to address this short-fall in supply.

Transboundary Impacts

15.117 It is not anticipated that the impacts of the proposed development would have any significant transboundary effects on population and human health.

Interaction with Other Impacts

15.118 It is not anticipated that the effects of the proposed development on population and human health would interact significantly with other impacts. This chapter has made reference to other chapters within this EIAR including Chapter 10 Air Quality, Chapter 11 Noise, Chapter 13 Traffic. Reference should also be made to Chapter 16: Interactions.

Mitigation Measures

15.119 Reference should be made to the following chapters of this EIAR for detailed mitigation measures to address the potential pathways for effects on material assets of human origin:

Chapter 5: Population and Human Health.

Chapter 13: Traffic.

Chapter 14: Cultural Heritage.

15.120 Reference should be made to the following chapters of this EIAR for detailed mitigation measures to address the potential pathways for effects on material assets of natural origin:

Chapter 7:Land, Soils and Geology.

Chapter 8: Water.

Chapter 10: Air Quality.

Chapter 11: Noise.

Chapter 12: Landscape.

15.121 The following waste management procedure should be extended to include waste generated at the application site:

A. Categorise waste according to type - hazardous/non-hazardous, recyclable, non-recyclable, compostable.

B. Store waste appropriately - waste should be stored and labelled according to categorises set out above. All waste containers should be stored on a an Impermeable surface and protected from the risk of accidental leaks.

C. Transport & Disposal: An appropriately licenced and trained operator should be responsible for the transport and disposal of all waste generated at the site. If hazardous waste is being disposed off, a hazardous waste Identification number must be assigned.

D. Plan for emergencies: Maintain spill and appropriate emergency response equipment In an accessible area.

E. Training: All employees and contractors should be trained In the waste management procedure, including the plan for emergencies.

F. Keep records: Records should be kept to ensure that waste Is stored, transported and disposed of according to the procedures set out in the waste management plan.

Residual Impact Assessment

Construction Phase

15.122 Following the implementation of mitigation measures identified above and in other chapters of this report, no residual impacts on material assets are anticipated in the construction phase of the development.

Operational Phase

15.123 Following the implementation of mitigation measures identified above and in other chapters of this report, no residual impacts on material assets are anticipated in the operational phase of the development.

Post-Operational Phase

15.124 Following the implementation of mitigation measures identified above and in other chapters of this report, no residual impacts on material assets are anticipated in the post-operational phase of the development.

Monitoring

15.125 As outlined in 8 (water), 10 (air quality) and chapter 11 (noise), of this EIAR monitoring in relation to the proposed development will be undertaken in respect of water, air and noise and vibration. On this basis, no specific monitoring is required in relation to population and human health.

Environmental Monitoring Programme

15.126 Monitoring will continue to be carried out on a regular basis, to demonstrate that the development is not having an adverse impact on the surrounding environment.

Dust Monitoring

15.127 Dust deposition monitoring will be carried out at the application site – refer to Chapter 10. Dust monitoring locations shall be reviewed and revised where necessary. The results of the dust monitoring will continue to be submitted to Galway County Council on a regular basis for review and record purposes.

Noise & Vibration Monitoring

15.128 Noise and vibration monitoring will continue to be carried out at the application site – refer to EIAR Chapter 11. Noise and vibration monitoring locations shall be reviewed and revised where necessary. The results of the noise monitoring will continue to be submitted to Galway County Council on a regular basis for review and record purposes.

Water Monitoring

15.129 The site will continue to operate an Environmental Management System (EMS), which will include surface water and groundwater sampling.

15.130 With respect to groundwater monitoring, there is routine monitoring of Groundwater Quality and Levels and Quality on a Quarterly basis for the on-site Supply Well and that will continue.

15.131 Monitoring measures will continue as usual and they verify whether the development is impacting on the hydrological and/or hydrogeological, and that the mitigation measures are effective.

Difficulties Encountered

15.132 No significant difficulties were encountered.

References

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