

CHAPTER 15

MATERIAL ASSETS

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Environmental Impact Assessment Report

Client: Coshla Quarries Limited

Ref. No.: 72.01

Project: Proposed continued operation and extension of an existing limestone quarry at Barrettspark, Athenry, Co. Galway

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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 ER. Material assets of human origin such as roads and traffic, archaeological /architectural heritage and flood protection are discussed in Chapters 13, 14 and 8.
- 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 This 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 This Quarry Consulting undertook the impact assessment presented in this chapter on behalf of Coshla Quarries Ltd. The lead consultant for the EIAR was Peter Kinghan (Chartered Mineral Surveyor), Post Graduate Diploma in Environmental Engineering. 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

- 15.7 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

Project: Proposed continued operation and extension of an existing limestone quarry at Barrettspark, Athenry, Co. Galway 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'.

- 15.8 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.
- 15.9 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

- 15.10 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."

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

- 15.12 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?

Assessment Methodology and Significance Criteria

15.13 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

15.14 The site is within the within the Aughrim 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:

- Aughrim
- Athenry
- Belleville
- Carnmore
- Greethill
- Lisheenavalla
- Oranmore
- Stradbally

Sources of Information

15.15 A desk-top study of the proposed development site and the surrounding study area was undertaken in September 2024. The desktop 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.galway.ie/en/services/planning/online/>)
- Property Registration Authority (PRA) land registry services (<https://www.landdirect.ie/>)

15.16 A site visit undertaken in November 2024 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 operation and restoration 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 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				
Sensitivity (or Value) of Receptor		No Change	Negligible	Minor	Moderate	Major
	Very High	Neutral	Slight	Moderate or Large	Large or Very 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 Barrettspark, situated approximately 13km east of Galway City centre and approximately 7km west of Athenry town centre.
- 15.23 The site is located approximately 155m to the north of the M6 – Galway – Dublin Motorway. Access to the site is provided via a 1km private access track that enters the site along its northern boundary. The access track joins the L7109, which in turn joins the R339 at a T-junction approximately 1.3km north of the site. In the vicinity of the site the L7019 comprises a marked single carriage road with an 80km/hr speed limit.
- 15.24 The application site is comprised of an existing operational quarry, which is broadly rectangular in shape within an overall site area of 27.5ha. Quarrying is presently focused on the eastern section of the site. The quarry floor area includes a mobile processing area in the south-east corner as well as mounds of graded aggregates awaiting transportation. It is proposed to extend the existing 8.4ha extraction area into lands to the east and southwest by a total of 4.6ha. These lands presently comprise disturbed ground. The western section of the site includes the concrete manufacturing facility and stockpile storage areas. The maintenance shed, site office, welfare facilities and site parking are located at the northern site boundary along with the existing site access.
- 15.25 Beyond the site, the landuse comprises a mix of agriculture, industrial and residential. Agricultural uses consist of fields used for pasture enclosed with stone walls or post and wire fencing. Industrial uses include an existing substation immediately north-east of the site and a metal-work company, further to the north-east.
- 15.26 Residences within the general area typically consist of one-off rural houses and ribbon development along the local road network. The nearest properties to the site comprise one dwelling situated to the south of the site boundary and three dwellings situated to the east of the site. There are two dwellings within 400m of the application site (EIAR Chapter 5: Figure 5.1) and approximately 76 dwellings within 1km of the quarry. The closest settlement to the site is the village of Oranmore, which is situated approximately 5km south-west of the site.
- 15.27 Tree cover is limited to some field boundaries and occasional conifer plantations, including at Palmerstown approximately 1.6km to the south-east of the site.

Property

- 15.28 Coshla Quarries Ltd. are the owners and operators of the site on which the proposed development is located.
- 15.29 Coshla Quarries Ltd. specialise in extracting bulk limestone which is used in a range of materials produced at the site including stone, aggregates and concrete products.
- 15.30 The quarry has been in operation since 2007 when it was granted planning permission as a 13-hectare quarry by Galway County Council (06/4125). A summary of the planning history of the site is provided below:
- | | |
|----------|--|
| 06/893: | Development of a 13 hectare quarry with associated roads and services (an Environmental Impact Statement will be available). Refused 13/03/2006. |
| 06/4125: | Development of a 13-hectare quarry with associated roads and services. Granted, conditional 16/03/2007 by Galway County Council. |

09/230: Retention of a concrete batching plant and temporary access haul road from Coshla Quarries Ltd adjacent to the N6 construction site. The site of the concrete batching plant including the temporary access haul road is 0.646ha. Granted conditional 07/04/09.

ABP 304769 Retention of development consisting of a concrete batching plant, which is an extension to an existing concrete batching plant permitted under Pl. Ref. No: 09/230, and includes for associated structures and hardstanding areas. Granted with revised conditions, including 10-year planning permission -14/10/2019

09/610: Retention of a maintenance shed for quarry machinery (gross floor space 394sqm). Granted, conditional 22/07/2009.

09/1958 To continue quarrying with associated roads and ancillary services and to operate a concrete batching plant and a bitumen plant within the quarry. The 13 hectare extraction area and the 27.5 hectare site boundary remains identical to that outlined in the existing quarry planning permission for Coshla Quarries Ltd (P06/4125). An Environmental Impact Statement (EIS) will be submitted with the application. Approved, conditional 14/12/09.

Third party appeal - ABP PL07.235821 – Inspector's recommendation for refusal was not accepted by the Board and permission was granted on 25/02/2011 subject to 25 conditions, including time limit of 10 years.

12/991 Temporary asphalt batching plant and ancillary activities for a period of five years or until the completion of the M17 M18 road projects or whichever comes first. The extent of the site within Coshla Quarries is 0.24 hectares. Approved, conditional (including 5 year time limit) 01/10/2012.

Third party appeal - ABP 07.241241 – Inspector's recommendation for approval (26/03/13) was not accepted by the Board and permission was refused on 16/05/2013 for reasons relating to traffic and the location on a regionally important and vulnerable aquifer and karsified bedrock which is highly vulnerable to pollution and can provide rapid conduits to sensitive receptors.

19/517: Development consisting of a concrete batching plant, which is an extension to an existing concrete batching plant permitted under Ref No. 09/230 and includes for associated structures and hard standing areas. Gross floor space of work to be retained 38sqm. Granted, conditional (subject to same time limit as 09/1958) 30/05/19.

Third party appeal - 304769-19. Planning granted, conditional, including same time limit as PL07.235821 (10/03/21).

21/859: Extension of duration to continue quarrying with associated roads and ancillary services and to operate a concrete batching plant and a bitumen batching plant within the quarry. The 13 hectare extraction area and the 27.5hectare site boundary remains identical to that outlined in the existing quarry planning permission for Coshla Quarries Ltd (P06/4125). An Environmental Impact Statement (EIS) will be submitted with the application. Previous Planning reference 08/1958. Granted 20/05/21. The permission will cease to have effect on 06/09/2026.

20/499: 20 year planning permission for the continued operation of the existing quarry and all associated uses and activities, as well as for an extension to the existing quarry extraction area and all associated site works including landscaping arrangements.

The proposed quarry extraction area extension is on lands to the north, south and east of the existing quarry and the additional extraction area amounts to approximately 6.7 hectares. The application is accompanied by an Environmental Impact Assessment Report and a Natura Impact Statement. Granted, conditional (including 10 year time limit, with 2 additional years for restoration). 08/10/2020

First and third party appeal – 308549-20. Inspector recommended approval subject to 16 conditions on 14/04/2023. Board accepted inspectors decision and granted permission on 23/08/2023. The permission was subsequently subject to judicial review. Through this process, some concerns and inconsistencies with the permission were identified. To resolve these inconsistencies and ensure clarity going forward, this planning application and updated Environmental Impact Assessment Report (EIAR) have been prepared.

Transport Network

- 15.31 The site is located approximately 155m to the north of the M6 – Galway – Dublin Motorway. Access to the site is provided via a 1km private access track that enters the site along its northern boundary. The access track joins the L7109, which in turn joins the R339 at a T-junction approximately 1.3km north of the site. In the vicinity of the site the L7019 comprises a marked single carriage road with a 60km/hr speed limit.
- 15.32 Public transportation in the area is relatively limited, however Bus Eireann operates bus service no. 425a from Galway City to Mountbellew which runs along the R339 north of the site. Other bus services are available from Oranmore, Athenry and Galway City. The nearest train station is located in Galway City.

Recreational Facilities & Amenities

- 15.33 Tourist and amenities in the vicinity of the site include, but are not limited to:
- Galway City – including a range of museums, restaurants, pubs and organised events.
 - Wild Atlantic Way
 - Galway Bay Golf Resort, Oranmore
 - Galway Bay Sailing Club, Oranmore
 - Local Beaches, including Ballyloughane Beach, Grattan Road Beach, Salthill Beach, Silverstrand Beach.
 - Athenry Forest Loop
 - Oranmore Circular walk.
- 15.34 Other recreational and community facilities and amenities are available in the towns of Oranmore, Athenry and in Galway City. These include GAA clubs, swimming pools, shops, health centres, community halls and churches.

Public Utilities

Electricity Network

- 15.35 Cashla 220kV Substation adjoins the site to the north-east. Two 100kV overhead power lines cross the application site. It is not proposed to re-route these lines as they are already accommodated within the existing and proposed site layout. The quarry operator is in

Project: Proposed continued operation and extension of an existing limestone quarry at Barrettspark, Athenry, Co. Galway
communication with ESB networks with respect to the work undertaken in the vicinity of overhead lines.

15.36 The application site benefits from an existing connection to the electricity grid via an overhead line.

Water Supply

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

Wastewater Supply

15.38 No wastewater collection infrastructure has been identified crossing the application. There is an existing wastewater treatment system on the application site.

Communications Infrastructure

15.39 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.

15.40 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

15.41 The application site comprises an existing operational limestone quarry, including all existing associated uses and activities, which includes:

- Open storage areas;
- Concrete manufacturing facility;
- Maintenance shed;
- Water management system;
- Weighbridge;
- Wheelwash;
- Site office, including canteen, staff room & welfare facilities;
- Landscaped and planted berms.

15.42 The proposed development also includes a lateral extension to the east and southwest of the existing quarry extraction area. The total area of the proposed extension is 4.6ha.

15.43 As stated above, the surrounding area comprises a mix of a mix of agriculture, industrial and residential uses, with the M6 motorway also comprising a dominant feature in the local landscape.

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

Natura 2000 Site	Site Code	Location at Closest Point to the Proposed Project
Galway Bay Complex SAC	000268	3.88 km south west

Lough Corrib SAC	000297	3.93 km north northwest
Inner Galway Bay SPA	004031	5.70 km south west
Cregganna Marsh SPA	004142	6.17 km south southwest
Rahasane Turlough SAC	000322	9.39 km south east
Rahasane Turlough SPA	004089	9.39 km south east
Lough Corrib SPA	004042	11.15 km north west
Lough Fingall Complex SAC	000606	11.88 km south
Castletaylor Complex SAC	000242	12.25 km south southeast
Kiltiernan Turlough SAC	001285	12.28 km south southeast
Monivea Bog SAC	002352	12.32 km north east
Ardrahan Grassland SAC	002244	14.25 km south southeast

15.45 The following NHAs and pNHA's are located in the vicinity of the application site:

- Galway Bay Complex pNHA – 3.87km.
- Kiltullagh Turlough pNHA – 5.677km.
- Cregganna Marsh NHA – 6.216km.
- Rahasane Turlough pNHA – 9.491km.
- Lough Fingall Complex pNHA – 11.823km.
- Cartletaylor Complex pNHA – 12.17km.
- Monivea Bog pNHA – 12.477km.
- Kiltiernan Turlough pNHA – 13.7km.

15.46 The nearest section of the Burren National Park is 25km to the south of the application site.

Geological Resources

15.47 According to the Geological Survey of Ireland (GSI) Spatial Resources, there are no geological heritage sites within 5km of the application site. The following geological heritage sites are situated within 7km of the application site:

- GY024: 5.2km north-east – Caherateemore M17 Road Cut.
- GY119: 7km south - Roevehagh M18 Road Cuts.
- GC001: Doughiska N6 Road Cut.

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

Natural Resources

Woodland

15.49 As stated above, tree cover in the vicinity of the site is limited to some field boundaries and occasional conifer plantations, including at Palmerstown approximately 1.6km to the south-east of the site.

Raw Materials & Waste

15.50 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 it is used in a range of materials produced at the site including aggregates, blocks, ready mixed concrete and asphalt.

Waste

15.51 The existing use of the site generates very low waste volumes.

15.52 Information on the capacity of landfill sites in County Galway has been sourced from the following documents:

- Connaught Ulster Waste Management Plan 2015 – 2021.
- Waste Collection Benchmarking Report for the Irish Waste Management Association.
- Construction and Demolition Waste, Soil and Stone Recovery/Disposal Capacity Update Report 2020 for all Waste Management Plans 2015-2021.
- National Waste Management Plan for a Circular Economy 2024-2030, EPA.

Assessment of Potential Effects – Material Assets of Human Origin

15.53 The proposed development comprises the continued extraction of limestone from an existing quarry and the extension of the existing extraction area into lands to the east and southwest of the existing quarry void.

15.54 The following assessment considers the operational and post-operational stage effects only as there will be no construction phase associated with the proposed development.

Land Use

Operational Phase

15.55 The proposed development would not significantly alter the existing land use of the site as the entire site is presently either part of the existing extraction area or immediately associated with it both functionally and visually. Existing lands to the north, east and south which are presently utilised as overburden storage areas would be directly affected by the proposed development and incorporated into the extraction area. The change would only be visible from within the site boundaries.

Land-use	Quality	Negative
	Extent	Existing extraction area c8.4ha, proposed extraction area c.4.6ha
	Probability	Likely
	Frequency	Constant
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	13ha directly affected by extraction. 27.5ha directly affected by quarry related land-uses. Use is however already established at the site.
	Significance	Not significant - <i>an effect which causes noticeable changes in the character of the environment but without significant consequences.</i> The proposed development would not significantly alter the nature of the land-use at the site.

Table 5.6: EPA Description of Effects – Land-use, operational phase

Post Operational Phase

15.56 The post operational phase comprises the restoration of the application site. The restoration proposals seek to create a lake from the quarry void, with additional woodland/scrub planting along the site boundaries and to the west of the extraction area.

Land-use	Quality	Positive
	Extent	Total site area 27.5ha.
	Probability	Likely
	Frequency	Constant
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	Total site area 27.5ha directly affected.
	Significance	Not significant - <i>an effect which causes noticeable changes in the character of the environment but without significant consequences.</i> The use of the land would be altered, however it would remain as a post-quarried use and allowed to vegetate and the void to fill with water. This would offer significant biodiversity net gain.

Table 5.7: EPA Description of Effects – Land-use, post-operational phase

Property

Operational Phase

15.57 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.

15.58 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.

15.59 The site is well screened and has been appropriately designed to ensure that this screening would remain in-tact. There would therefore be little to no visibility of the site from the surrounding areas, thus preserving the visual amenity and therefore the potential property values of dwellings in the area.

15.60 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 extension would not be significant.

Property	Quality	Negative
	Extent	Total site area 27.5ha directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries.
	Probability	Likely
	Frequency	Daily – traffic, noise & atmospheric emissions. Vibration – fortnightly or monthly.
	Duration	Long-term
	Reversibility	Reversible

	Direct/Indirect	Total site area 27.5ha directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries.
	Significance	Not significant - <i>an effect which causes noticeable changes in the character of the environment but without significant consequences.</i>

Table 5.8: EPA Description of Effects – Property, operational phase

Post Operational Phase

15.61 As stated above, the post operational phase comprises the restoration of the application site. The restoration proposals offer the potential for biodiversity gain. The effect on property would however be neutral as the changes would not be perceptible compared to the baseline.

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

Table 5.9: EPA Description of Effects – property, post-operational phase

Transport Network

Operational Phase

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

15.63 The results of the traffic and transport assessment confirm that the development would not have a significant effect on traffic flows on the existing road network due to the background traffic volumes, the volumes of traffic being generated during the operational phase and the capacity of the road network.

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

Table 5.10: EPA Description of Effects – Transport, operational phase

Post Operational Phase

15.64 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 - <i>an effect which causes noticeable changes in the character of the environment but without significant consequences.</i>

Table 5.11: EPA Description of Effects – Transport, post-operational phase

Recreational Facilities & Amenities

Operational Phase

15.65 The proposed development is not predicted to have any negative effect on recreational facilities and amenities identified above as the site is distant from the majority of those resources and the site itself is in private ownership and not used for recreational purposes. The site is not visible from any existing recreational resources and noise associated with the proposed development would not be heard from these any recreational facilities or tourist attractions.

Recreation	Quality	Negative
	Extent	Total site area 27.5ha directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries.
	Probability	Likely
	Frequency	Daily –Noise & atmospheric emissions. Vibration – Once every 5 weeks potentially increasing to twice in 5 weeks.
	Duration	Long-term
	Reversibility	Reversible
	Direct/Indirect	Total site area 27.5ha directly affected. Potential effects on noise and atmosphere may extend beyond site boundaries.
	Significance	Not significant - <i>an effect which causes noticeable changes in the character of the environment but without significant consequences.</i>

Table 5.12: EPA Description of Effects – Recreation, operational phase

Post Operational Phase

15.66 Restoration of the site would similarly not have any negative effects on recreational facilities and amenities identified above as the site is distant from the majority of those resources and the site itself is in private ownership and not used for recreational purposes.

15.67 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 recreational amenity of the study area.

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

Table 5.13: EPA Description of Effects – Recreation, post-operational phase

Public Utilities

Operational Phase

15.68 The two existing 110kV overhead power lines cross the application site would not be affected by the proposed development. The quarry operator is in communication with ESB networks with respect to the work undertaken in the vicinity of overhead lines.

15.69 The existing electricity connection, water supply and communications arrangements would not be altered by the proposed development.

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 5.14: EPA Description of Effects – Public Utilities, operational phase

Post Operational Phase

15.70 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 5.15: EPA Description of Effects – Public Utilities, post-operational phase

Assessment of Potential Effects – Material Assets of Natural Origin

Land Resources

Operational Phase

15.71 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.

Post Operational Phase

15.72 See Chapter 6 and 12 above, no significant adverse direct or indirect effects on land resources are anticipated. The restoration proposals include the flooding of the quarry and planting of mix of native tree species. This would have a “slight” “positive” effect on land resources.

Operational Phase

15.73 As the site comprises an existing limestone quarry, the operational areas have been previously stripped of soils. Some soil / subsoil material remains stored within the lateral extension area, which will be removed and used internally for site restoration purposes.

15.74 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.

15.75 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 advise on actions in the event of spillages.

15.76 Given the distance between the application site and the geological heritage sites identified above, there is unlikely to be any significant effects.

Geology	Quality	Negative
	Extent	13ha extraction area directly affected as geological resource would be removed.
	Probability	Likely
	Frequency	Daily
	Duration	Long-term
	Reversibility	Irreversible
	Direct/Indirect	Direct effect on 13ha of site
	Significance	Moderate - An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.

Table 5.16: EPA Description of Effects – Geology, operational phase

Post Operational Phase

15.77 The restoration of the site would not have any affect on existing geological resources as it is proposed to flood the quarry and 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 5.17: EPA Description of Effects – Geology, post-operational phase

Natural Resources

15.78 The proposed development does not require the removal of any existing trees, hedgerows or other natural features. The application site presently comprises low value habitats associated with the extractive industry. This is evaluated in chapter 6 Biodiversity.

Post Operational Phase

15.79 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.

Raw Materials & Waste

Operational Phase

15.80 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 for the duration of the operational stage.

15.81 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.

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 5.18: EPA Description of Effects – Waste, operational phase

15.82 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 5.19: EPA Description of Effects – Raw Materials, operational phase

Post Operational Phase

15.83 The restoration of the proposed development will require minimal raw materials and would generate minimal waste streams. Fertiliser will be used 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 5.20: EPA Description of Effects – Waste & Raw Materials, post-operational phase

Cumulative Effects

15.84 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. Chapter 2 sets out the methodology for identifying those developments which have the potential to cause cumulative effects. It excluded developments that were already constructed 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:

- 2560052: For the proposed development within County Galway will comprise: •the replacement (“restringing”) of the existing OHL circuit conductor wires with a new higher capacity conductor; •Replace tower in situ at 1no. location;•Retain towers at 3no. locations including foundation strengthening with bar member replacement at 2 locations;•Replace polesets at 15no. locations;•the replacement of insulating and ancillary hardware at structures;•all associated temporary site development works to gain access: **Decision Due Date:** 16/03/2025
- 24260: For the installation of solar panels over the roof of an existing telecommunications cabin on a steel frame (covering an area of 60 sqm to maximum height of 5 meters above ground level) works to consist of all ancillary development works, including steel uprights. Received: 06/09/2024
- 2360948: Retention permission for development at C&F Tooling, Cashla, Athenry, County Galway. Retention planning permission for the following extensions to the existing C&F Tooling premises: • machine shop & canteen (gross floor area - 792m2) • switch room & compressor room (gross floor area - 96 m2) •maintenance garage & stores gross floor area - 673 m2) • monitoring office building (gross floor area - 444 m2) • steel cleaning shop (gross floor area - 62.3 m2) • store (gross floor area - 20.3 m2): Granted 26/06/2024 – Appealed 23/07/2024.
- 23355: To upgrade the existing 220k overhead line between the existing Cashla 220kV Substation in the townland of Barrettspark, Co. Galway, & Tower 138 in the townland of Oughtagh, Co. Galway. The proposed development will consist of refurbishment works to the existing overhead Line (approximately 49 km long & comprising of 138no. steel angle masts). The refurbishment works to towers will consist of: installation of replacement parts on the towers including insulators, shield wire, vibration dampeners, arching horns & anti-climbing guards; associated site development works, including temporary work areas, foundation refurbishment /strengthening & recapping/clearing of

shear blocks; clearance of shear block bases; & ancillary works; ancillary site preparation works, site clearance & levelling at the 6no. temporary construction compounds & associated temporary works to existing tracks & new temporary access routes to provide internal access routes to each tower with all associated works required to facilitate the development. No works will be undertaken to the overhead line (conductor). The proposed development will also consist of upgrades to the Cashla 220kV substation that will consist of: the decommissioning and removal of line bay equipment within the substation boundary; construction of a new adjacent offline like for like line bay & associated bay protection cabinets within the substation boundary; & new overhead lines connection between the end mast & the new line bay. Land Use & Property: Further Information Received: 24/07/2024

- 20961: For permission for development at this site at Ballymoneen and Grange East, Co Galway. The development will consist of a planning permission for a period of 5 years to construct and complete a Solar PV Energy and Battery Storage development with a total site area of circa 140.9 Hectares to include a single storey electrical substation building, electrical transformer and inverter station modules, solar PV panels ground mounted on support structures, battery containers and associated infrastructure, internal access tracks, security fencing, electrical cabling/ ducting, CCTV and other ancillary infrastructure, drainage, additional landscaping and habitat enhancement as required and associated site development works including works related to the access to the site. The solar farm would be operational for 35 years. Gross floor space of proposed development: 1886.39 sqm. Approved Conditional: 22/01/2021
- 2261105: To construct and complete a solar pv energy development with a total site area of circa 24.51 hectares, to include electrical transformer and inverter station modules, solar pv panels ground mounted on support structures, internal access tracks, security fencing, electrical cabling and ducting, cctv and other ancillary infrastructure, drainage, additional landscaping and habitat enhancement as required and associated site development works, the solar farm would be operational for 35 years, access will be gained from a private lane off the I-7117 to the northeast, this access point and part of the internal access track is within the red line boundary of the consented ballymoneen solar farm application (planning ref: 20/961).Gross floor space of proposed works 768.00sqm. Approved Conditional: 07/03/2023.
- 181883 / ABP-304922-19: for a ten-year planning permission for the development of an up to 100MW Battery Energy Storage Facility that will provide energy services to the national grid and will be delivered in 4 no. phases. The development will consist of the construction and operation of up to 34 metal containers to store up to a project total of up to 100MW in sealed battery cells each with entrances, fire suppression systems, heating, ventilation and air conditioning systems. The proposed development includes for inverters, control systems, other electrical components, security lighting and ancillary infrastructure and all associated works including security fencing and ancillary grid infrastructure. Gross floor space of proposed works: 2186.6 sqm: Granted conditional 21/06/2019: Appeal granted: 12/11/2019
- 15488 / ABP-07.245518: to construct the following: a 24,505sqm single storey data centre building, a 5232sqm single storey Logistics and Administration Building, a 289sqm single storey Maintenance Building, a 16sqm Security Hut and associated barriers, 2 number 48sqm Fibre Huts (max building eaves height = 10m), 18 external standby generators, all associated external plant, a 20kV Electricity Substation, contractor facilities, a main entrance including a new right turning lane, internal access roads and

associated infrastructure, proprietary waste water treatment plants including percolation areas, mains water connection, fire water storage tanks; rainwater harvesting, provision of fibre optic data connections, car parking (207 spaces, including 7 visitor spaces, 50 internal staff mobility spaces and disabled parking spaces), bike parking, an amenity walkway and associated parking, site leveling for a laydown area and a 220kV substation, 2.4m high perimeter security fencing, landscaping including supplementary tree planting and all associated works. A report for screening for Appropriate Assessment and an Environmental Impact Statement (EIS) will be submitted with the planning application (gross floor space 30,138sqm) Granted 09/09/2015 – Appealed 22/09/2015. Appeal granted 11/08/2016

Cumulative Effects – Material Assets of Human Origin

Land Use

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

Property

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

Transport Network

15.87 All of the above developments would result in traffic (associated with construction phases) onto either the L7109 and the R339, particularly if construction phases occurred concurrently. The potential effects of this have been assessed in chapter 13: Traffic, which has concluded that there would be no potential for cumulative effects due to traffic.

Recreation & Amenity

15.88 No significant adverse cumulative effects on recreation and amenity are anticipated due to the operation of the above developments as they are all distant from the identified recreational and amenity resources.

Public Utilities

15.89 No significant cumulative effects on public utilities are anticipated due to the operation of the above developments.

Cumulative Effects – Material Assets of Natural Origin

Land Resources

15.90 See Chapter 6 and 12 above, no significant adverse cumulative effects on land resources are anticipated.

Geological Resources

15.91 None of the developments identified above relate to quarries or would require the removal of the existing geological resource. No significant adverse cumulative effect is therefore likely to occur.

Natural Resources

15.92 Each of the above sites has been assessed in terms of their potential effects on ecological and landscape resources and have been determined as acceptable. No potential cumulative effects with the proposed development are anticipated.

Raw Materials & Waste

15.93 The proposed development offers potential material supply for groundworks associated with the above listed developments. No other potential cumulative effects have been identified.

15.94 Waste volumes associated with the above developments are not likely to be substantial and therefore no potential cumulative effects are anticipated.

Transboundary Impacts

15.95 It is not anticipated that the impacts of the proposed development would have any significant transboundary effects on material assets.

Interaction with Other Impacts

15.96 It is not anticipated that the effects of the proposed development on material assets would interact significantly with other impacts.

Do Nothing Scenario

15.97 Under the 'do-nothing' scenario, Coshla Quarry would continue to operate the quarry as permitted.

15.98 In the short-term period, 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.

15.99 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.

15.100 The application site is situated in a part of County Galway that is relatively free from constraints such as nature conservation designations, in addition it is located relatively near to a number of urban centres and sources of demand. The do-nothing scenario could result in pressure for alternative, less suitable locations being proposed for quarries to address this short-fall in supply.

Mitigation Measures

15.101 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.

15.102 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.

15.103 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 categories set out above. All waste containers should be stored on 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 of, 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

Operational Stage Impacts

15.104 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 Stage Impacts

15.105 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

15.106 Monitoring is not proposed in relation to material assets.

Difficulties Encountered

15.107 No significant difficulties were encountered.

References

Environmental Impact Assessment of Projects. Guidance on the Preparation of the Environmental Impact Assessment Report (European Commission 2017).

Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022).

Implementation Of Directive 2001/42 On The Assessment Of The Effects Of Certain Plans And Programmes On The Environment

http://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/Key-Tourism-Facts-2018.pdf?ext=.pdf

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https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2_Develop_Your_Business/6_Funding/FI-Tourism-Investment-Strategy-Final-07-06-16.pdf <http://thewesternway.ie/>

<https://www.failteireland.ie/Research-Insights/Activities/visitor-numbers-to-attractions-dashboard.aspx>

IEMA Guide to: Materials and Waste in Environmental Impact Assessment (IEMA 2020)

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

Property Registration Authority (PRA) land registry services (<https://www.landdirect.ie/>)