Chapter 1:

INTRODUCTION

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1 INTRODUCTION

1.1 Introduction

This remedial Environmental Impact Assessment Report (rEIAR) has been prepared to accompany an application to An Bord Pleanála for substitute consent planning permission having regard to Sections 177C and 177D of the Planning and development Act, 2000 (as amended) in respect of a quarry development located within the townland of Drumbeagh, Mountcharles, Co. Donegal, (Latitude 54.653 Longitude -8.234). There is also a remedial Ecological Report which contains a Stage 1 Screening for Appropriate Assessment prepared to accompany the application for substitute consent.

The proposal is for substitute consent for the quarry development at Drumbeagh, Mountcharles, Co. Donegal. The total site area is 3.45 ha which is well below the sub threshold determination level for EIA. At the request of An Bord Pleanála, a rEIAR has been produced. For descriptive purposes the overall quarry boundary is referred to as the ''site''.

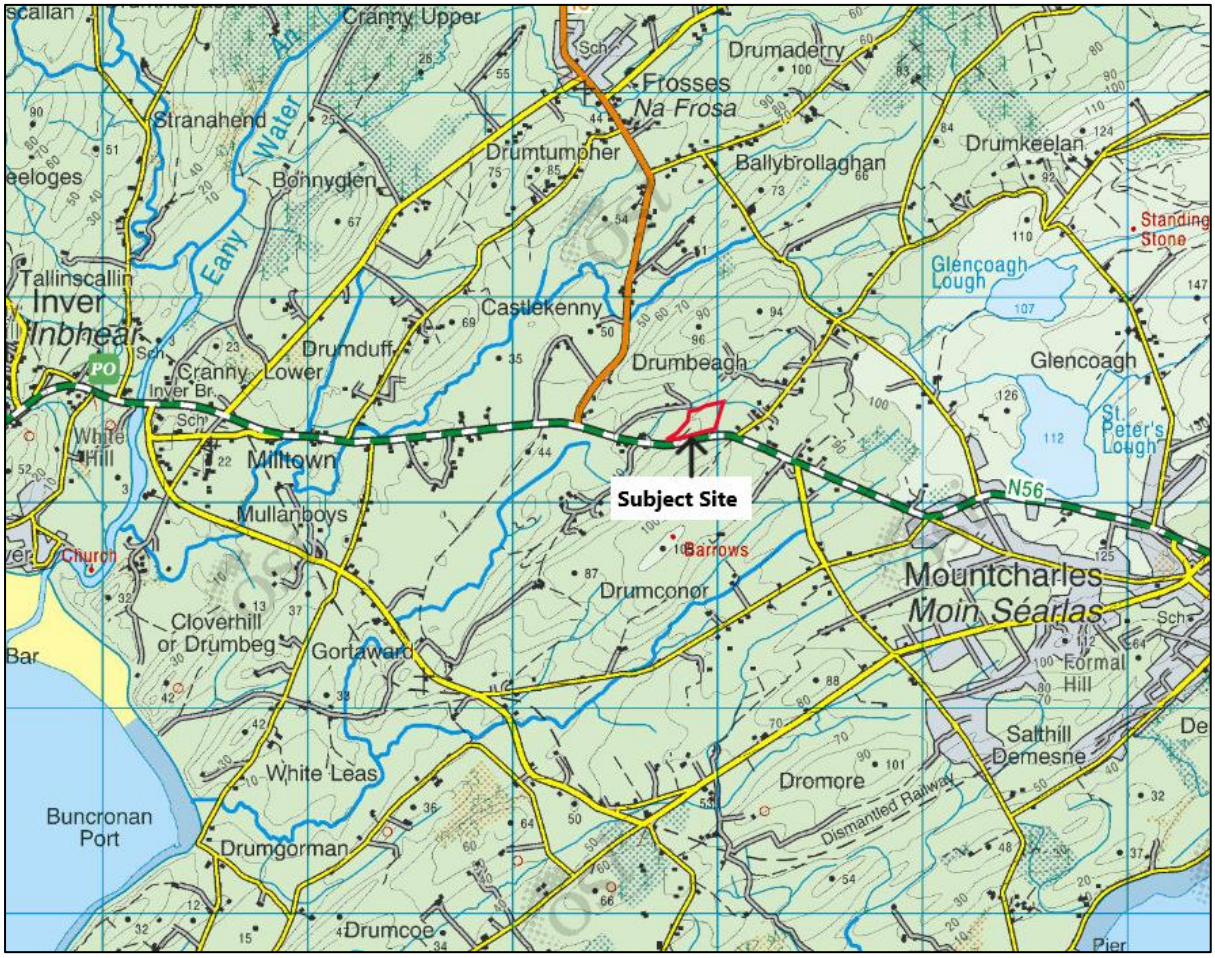
1.2 Existing Site Description

1.2.1 Site Location

The development consists of a quarry located on a 3.45-hectare site in the rural townland of Drumbeagh. The site is located immediately north of the N56 between the villages of Mountcharles and Inver. The site is approximately 2.5 km west of Mountcharles, 3 km east of Inver and 1.7 km south of the villages of Frosses. The site is accessed off a local slip road immediately off the N56. The access road also serves the quarry owner and one other local resident. The site is surrounded by a mixture of poor-quality agricultural land, improved agricultural grassland and one-off rural houses and farmsteads. There are also peatlands and isolated forestry blocks in the surrounding area. The location of the site in a regional context is given in Figure 1.1 below. Figure 1.2 below shows the site layout.

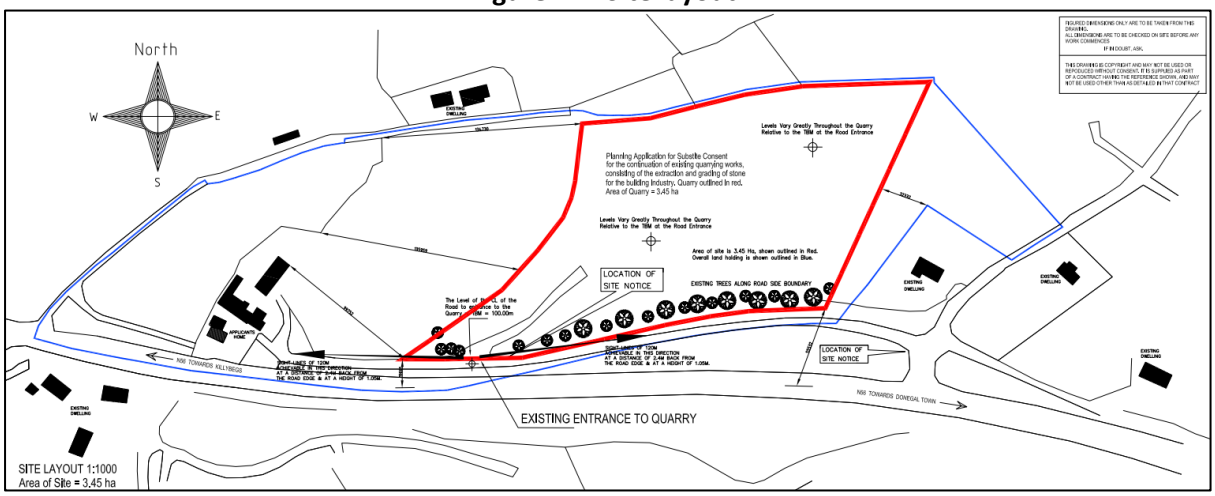
Quarrying activity to date has altered the natural topography of the land and has resulted in the creation of a quarry void. The existing working quarry consists of an extraction area where rock is extracted and a small processing area where rock is cut to product size. This application relates to the total size of the existing footprint of the site – 3.45 hectares.

Figure 1.1: Application site in a regional context



CYAL50381113 © Ordnance Survey Ireland/Government of Ireland

Figure 1.2: Site layout



(Extract from Drawing provided by McMullin Associates – not to scale)

1.2.2 Operational History

The site has been worked by the Murray family for many generations and can be traced back to at least 1918, with the family home built on lands nearby in 1850. There are records of Donegal County Council purchasing and utilising extracted material for the site as far back as the 1950's. There are historical 25'' maps produced showing a quarry at the location of the site. This series of maps was surveyed between 1863 and 1924.

Most of the extracted rock processed aggregate is sold as cut stone after processing with guillotine or circular saw. Product is collected by regular customers using their own lorries.

1.2.3 Site Layout

The historical development of quarrying at the site has resulted in a quarry void. The main items of site infrastructure in the proposal are the small processing area where rock is guillotined and occasional cut using a circular saw. The equipment in these areas is covered by temporary structures of timber frame and either plastic sheet roofing or corrugated iron roofing. The processing and stockpiling area is in the western part of the site near the entrance.

1.2.4 Site Access

The quarry is accessed directly off a local road which is adjacent to the N56 national route. The N56 provides a good transport link to Donegal Town and further afield.

1.3 The Applicant

Gabriel Murray is the applicant trading under the name 'Murray Stone' and the term Murray Stone will be used throughout the rEIAR to indicate the applicant. The Murray family have had quarrying involvement on this site for generations and now wish to regularise activities through the substitute consent process. Murray Stone have built up a small but reputable cut stone business.

1.4 Environmental Impact Assessment Report (EIAR) Methodology

The primary objective of this rEIAR is to identify baseline environmental and socio-economic conditions in the vicinity of the proposed development, assess potential beneficial and/or adverse effects of the development to date and propose appropriate mitigation measures where necessary. The following guidelines were considered as part of this rEAIR:

- Chartered Institute of Ecology and Environmental Management (CIEEM) (2019). Guidelines for Ecological Impact Assessment.
- Chartered Institute of Ecological and Environmental Management (CIEEM) (2012). Preliminary Ecological Appraisal.
- Fossitt JA (2000). A Guide to Habitats in Ireland.
- The Heritage Council (2011) Habitat Survey Guidelines: A Standard Methodology for Habitat Survey and Mapping in Ireland.
- Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. Department of the Environment, Community and Local Government DoEHLG (2013).
- Guidelines for assessment of Ecological Impacts of National Road Schemes, (NRA, 2009). Environmental Impact Assessment of National Road Schemes – A Practical Guide (NRA, 2009).
- Environmental Assessment and Construction Guidelines (NRA, 2006).
- Advice Notes on Current Practice (in preparation of Environmental Impact Statements) (Environmental Protection Agency (EPA), 2003).
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2002).
- European Commission Guidance on the preparation of the Environmental Impact Assessment Report (2017).
- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (May 2022).

Information on the project and the receiving environment was obtained through several means including:

- Discussions with the applicant
- Aerial photographs.
- Site visits and field surveys.
- Site assessments (geology, water, noise, dust etc.)
- Donegal County Council.
- Review of general data for the general area in and around the subject site.
- Review of previous studies carried out at the site and locally.
- Consultation with interested parties.

1.5 Remedial Environmental Impact Assessment Report

This rEIAR is prepared under instruction from the applicant, Murray Stone, and is submitted to An Bord Pleanála who will use the information provided to assess the potential beneficial and/or adverse effects and proposed mitigation measures to determine if substitute consent should be granted. The EIA Directive (2014/52/EU) describes information which should be included as part of an EIAR (& rEIAR):

1. *Where an environmental impact assessment is required, the developer shall prepare and submit an environmental impact assessment report. The information to be provided by the developer shall include at least:*
   - **a)** *a description of the project comprising information on the site, design, size and other relevant features of the project.*
   - **b)** *a description of the likely significant effects of the project on the environment.*
   - **c)** *a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.*
   - **d)** *a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.*
   - **e)** *a non-technical summary of the information referred to in points (a) to (d); and*
   - **f)** *any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.*

Where an opinion is issued pursuant to paragraph 2, the environmental impact assessment report shall be based on that opinion and include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. The developer shall, with a view to avoiding duplication of assessments, take into account the available results of other relevant assessments under Union or national legislation, in preparing the environmental impact assessment report.

2. *Where requested by the developer, the competent authority, taking into account the information provided by the developer in particular on the specific characteristics of the project, including its location and technical capacity, and its likely impact on the environment, shall issue an opinion on the scope and level of detail of the information to be included by the developer in the environmental impact assessment report in accordance with paragraph 1 of this Article. The competent authority shall consult the authorities referred to in Article 6(1) before it gives its opinion.*

Member States may also require the competent authorities to give an opinion as referred to in the first subparagraph, irrespective of whether the developer so requests.

3. *In order to ensure the completeness and quality of the environmental impact assessment report:*
   - a) *the developer shall ensure that the environmental impact assessment report is prepared by competent experts;*
   - b) *the competent authority shall ensure that it has, or has access as necessary to, sufficient expertise to examine the environmental impact assessment report; and*
   - c) *where necessary, the competent authority shall seek from the developer supplementary information, in accordance with Annex IV, which is directly relevant to reaching a reasoned conclusion on the significant effects of the project on the environment.*

Article 3 of the EIA Directive (2014/52/EU) states that the following factors/topics should be described and assessed:

1. *"The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:*
   - a) *population and human health;*
   - b) *biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC.*
   - c) *land, soil, water, air and climate.*
   - d) *material assets, cultural heritage and the landscape.*
   - e) *the interaction between the factors referred to in points (a) to (d).*

2. *The effects referred to in paragraph 1 on the factors set out there in shall include the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project concerned."*

1.5.1 rEIAR Format

This rEIAR is presented in the "Grouped Format Structure" which gives an introduction, an overall project description, then examines each topic as a separate Chapter. The coverage of each topic includes descriptions of the relevant characteristics of the proposed project, the existing environment, predicted impacts, mitigation measures and residual impacts.

- **Chapter 1** provides an introduction to the development and provides details on the project team, their relevant expertise and competencies.
- **Chapter 2** provides details in relation to screening, scoping and consideration of alternative design and processes,
- **Chapter 3** provides details relating to the proposed work methods within the development including day-to-day processes that will be undertaken at the proposed development.
- **Chapter 4** sets out planning and development context relating to the proposed development. This Chapter reviews the national, regional and local planning policy relevant to the development.
- **Chapters 5 to 15** detail information on all aspects of the existing environment including any impacts or potential impacts identified relating to the existing and proposed development. Mitigation measures are reviewed and proposed where required in order to offset potential or predicted impacts identified.
- **Chapter 16** addresses the cumulative impacts, indirect impacts and main interactions between different aspects of the environment likely to be significantly affected by the

proposed activities at the application site. Only topics that can be logically linked to the development have been examined in detail. Accordingly, when a topic is not mentioned, it is concluded that no potential for conflict exists.

- **Chapter 17** provides a summary of the potential impacts identified relative to each environmental factor and the mitigation measures proposed in order to offset the potential impact. Residual impacts are also described.

This rEIAR is structured under the following subject headings:

- Chapter 1 *Introduction*
- Chapter 2 *Screening , Scoping & Alternatives*
- Chapter 3 *Project Description*
- Chapter 4 *Planning & Legislative Framework*
- Chapter 5 *Population & Human Health*
- Chapter 6 *Biodiversity*
- Chapter 7 *Land, Soils & Geology*
- Chapter 8 *Water*
- Chapter 9 *Noise & Vibration*
- Chapter 10 *Air*
- Chapter 11 *Climate*
- Chapter 12 *Material Assets – Traffic*
- Chapter 13 *Material Assets – Site Services*
- Chapter 14 *Cultural Heritage*
- Chapter 15 *Landscape & Restoration*
- Chapter 16 *Interactions / Inter-relationships*
- Chapter 17 *Mitigation & Monitoring Summary*

Chapters 5 to 15 of the rEIAR follow the same general format, as follows:

- An **Introduction** describing the purpose of the Chapter.
- A description of the **Methodology** used in the Chapter.
- A description of the aspect of the **Existing Environment** relevant to the environmental topic.
- A summary of the **Characteristics of the Development** and an **Impact Assessment** of the development on the environmental topic.
- A description of **Mitigation Measures** proposed in order to avoid, reduce or where possible remedy any adverse environmental effect identified.
- Any **Residual Impacts** after mitigation measures are proposed.

1.5.2 rEIAR Impact Assessment

A key purpose of the Environmental Impact Assessment (EIA) is to assess the "likely significant effects". The classification of impacts associated with the proposed development follows criteria as set out in EPA Guidance Documents – *Guidelines on the Information to be contained in Environmental Impact Assessment Reports –May 2022 (EPA)*.

Each Chapter of the rEIAR describes potential impacts in terms of its quality, significance, extent, probability, duration & frequency and type, where possible. Table 1.1 outlines these characteristics with associated levels and description as used through this rEIAR.

Table 1.1: Description of Effects (Table 3.3 of the EPA Guidance Document)

Quality of Effects	**Positive Effects** A change which improves the quality of the environment (for example, by increasing species diversity; or the improving 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).
Describing the Significance of Effects	**Imperceptible** An effect capable of measurement but without significant consequences.
	Not significant An effect which causes noticeable2 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 Effects An effect which obliterates sensitive characteristics.
Describing the 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?)
Describing the 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.
Describing the Duration and Frequency of Effects	**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).
Describing the Types of Effects	**Indirect Effects (a.k.a. Secondary Effects)** Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative Effects The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
	'Do-Nothing Effects' The environment as it would be in the future should the subject project not be carried out.
	`Worst case' Effects The effects arising from a project in the case where mitigation measures substantially fail.
	Indeterminable Effects When the full consequences of a change in the environment cannot be described.
	Irreversible Effects When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
	Residual Effects The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
	Synergistic Effects Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).

1.6 rEIAR Study Team

The team members involved in the preparation of this EIAR are included in Table 1.2.

Table 1.2: EIAR Study Team

Chapter		Team Member
	Non-Technical Summary	**Greentrack Consultancy Limited** • Colin Farrell BSc. MSc. • Daniel Faulkner BSc. MSc. • Shannen McEwen BSc. Env. Sc
1	*Introduction*	
2	*Screening, Scoping & Alternatives*	
3	*Project Description*	
4	*Planning & Legislative Framework*	
5	*Population & Human Health*	
6	*Biodiversity*	
7	*Land, Soils & Geology*	
8	*Water*	
9	*Noise & Vibration*	
10	*Air*	
11	*Climate*	
12	*Material Assets – Traffic*	
13	*Material Assets – Site Services*	
14	*Cultural Heritage*	
15	*Landscape & Restoration*	
16	*Interactions / Inter-Relationships*	
17	*Mitigation & Monitoring Summary*	

1.6.1 Greentrack Consultancy

Greentrack specialise in Appropriate Assessment and Environmental Impact Assessment throughout Donegal and the northwest of Ireland.

Colin Farrell is a geochemist with Greentrack. Colin holds a BSc. Geochemistry from Reading University and MSc Applied Environmental Science from Queens University Belfast. He also holds a Certificate of Competence in Environmental Noise Measurement awarded by the Institute of Acoustics and Certificate in Arboriculture issued by the Royal Forestry Society. Colin has over 10 years' experience working with Greentrack in dealing with Environmental Impact assessment, Site Remediation works, Quarry assessments, Flood Risk assessment, hydrological and hydrogeological reports.

Daniel Faulkner is an ecologist with Greentrack holding a BSc Environmental Science and an MSc Environmental Sustainability. Daniel has been involved in all aspects of Appropriate Assessments and Environmental Impact Assessments since 2020. He has experience conducting habitat surveys and invasive species surveys and is involved in all aspects of GIS application.

Shannen McEwen is an ecologist with Greentrack. Shannen holds a B.Sc. (Hons) Environmental Science with a Diploma in Professional Practice from the University of Ulster. She has been involved in all aspects of Appropriate Assessment, Natura Impact Statement and Environmental Impact Assessment preparation since 2017. Shannen is an Associate Member of the Institution of Environmental Sciences.

1.7 Technical Difficulties

Data limitations and technical difficulties associated with the compilation of the rEIAR are detailed in relevant Chapters of the rEIAR.

1.8 References

- European Communities (Environmental Impact Assessment) Regulations, 1989 to 1999, (S.I. No.349 of 1989)
- Local Government (Planning & Development) Regulations, 2001 (S.I. No. 600 of 2001)
- European Communities (Environmental Impact Assessment) Regulations, 1989 to 1999, Second Schedule, (S.I. No.93 of 1999)
- European Communities (Environmental Impact Assessment) Regulations, 1989 to 1999, Third Schedule, (S.I. No.93 of 1999)
- Guidelines on the Information to be Contained in Environmental Impact Statements, Environmental Protection Agency (EPA 2002)
- Advice Notes on current practice in the preparation of Environmental Impact Statements (EPA 2003)
- Environmental Management Guidelines – Environmental Management in the Extractive Industry (Non-Scheduled Minerals) prepared by the Environmental Protection Agency (2006)
- Draft Revised Guidelines on the Information to be Contained in Environmental Impact Statements, (EPA September 2015)
- Draft Advice Notes for Preparing Environmental Impact Statements (EPA September 2015)
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, May 2022)
- Donegal County Development Plan 2018-2024