Environmental Consultants

Remedial Natura Impact Statement

Remedial Natura Impact Statement in relation to planning application by Tinney's Quarry for substitute consent for the quarry located at Trentaghmucklagh, St Johnston, County Donegal.

Greentrack Environmental Consultants

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Prepared By:	Greentrack Consultancy Limited 4 Roe House, Dry Arch Business Park, Letterkenny, Co. Donegal F92 NHT0 074 9126483

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1 INTRODUCTION

Greentrack Consultants have been instructed by Ian Tinney of Tinney's Quarry to undertake this Remedial Natura Impact Statement (rNIS), under Article 6 of the EU Habitats Directive, which will accompany an application for substitute consent to An Bord Pleanála for the quarry located in Trentaghmucklagh, St Johnston, County Donegal. The aim of this rNIS is to assess any likely significant effects or impacts caused by the existing development on the integrity of the Natura 2000 network, both independently and in conjunction with other plans and projects.

Other reports prepared for this application were used to inform the preparation of this rNIS including:

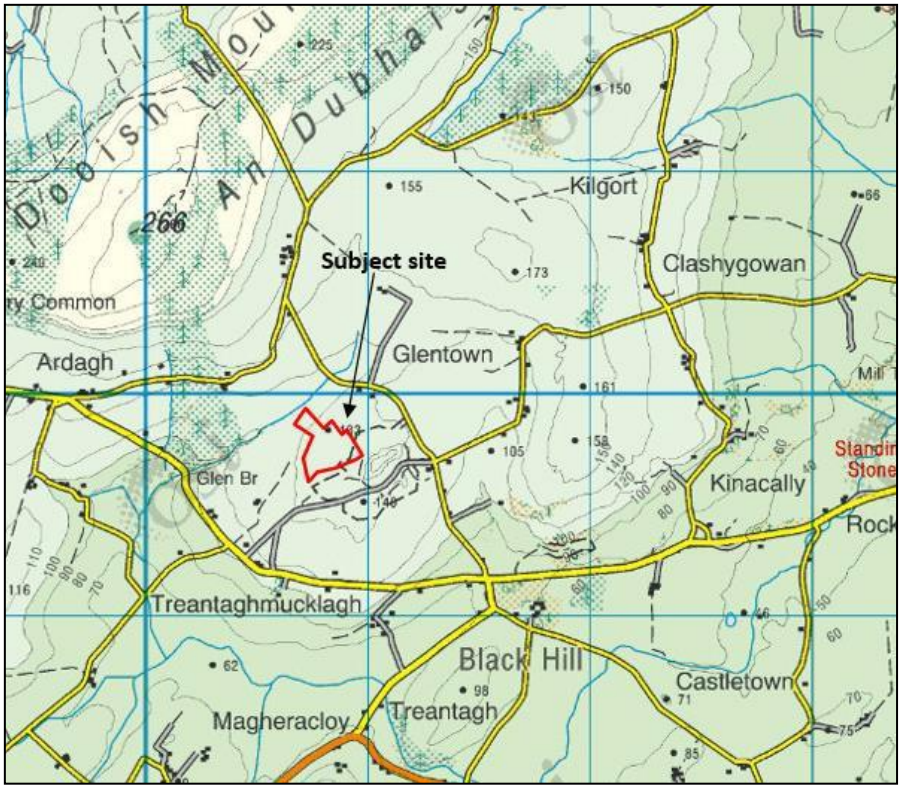
- A Stage 1 Appropriate Assessment Screening Report by Greentrack Consultants (Appendix I).
- Remedial Environmental Impact Assessment Report (rEIAR) by Greentrack Consultants.

1.1 Background and Requirement for Report

1.1.1 Project Description

The subject site has previously been the subject of an application for Substitute Consent which was lodged on 21st January 2013, following from the S261A review of the quarry by Donegal County Council. That application was accompanied by a rNIS. The Board sought further information in respect of the application but dismissed the application as the required information had not been provided This rNIS is being submitted in conjunction with a rEIAR following the decision of An Bord Pleanala in November 2021 to grant leave to apply for Substitute Consent and this rNIS examines the potential impacts that could have occurred on the Natura 2000 network as a result of this quarry and associated activities. The subject site covers an area of 9.9 hectares which includes the extracted area, the area cleared of overburden, areas where overburden has been stockpiled for later reuse and the settlement lagoon area as well as the access road from the local road to the quarry. Figure 1.1 provides the site location.

Figure 1.1: Site Location



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1.1.2 EU Habitats Directive

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna) formed a basis for the designation of Special Areas of Conservation (SAC's). Similarly, Special Protection Areas are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). Collectively, SACs and SPAs are referred to as Natura 2000 sites. In general terms, they are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community. Under Article 6(3) of the Habitats Directive an Appropriate Assessment must be undertaken for any plan or project that is likely to have a significant effect on the conservation objectives of a Natura 2000 site. An Appropriate Assessment is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site, and the development, where necessary, of mitigation or avoidance measures to preclude negatives effects. The main aim of the EU Habitats Directive is to "contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies". The Directive was originally transposed into Irish law by the European Communities (Natural Habitat) Regulations, S1 94/1997. However, two judgments of the Court of Justice of the EU (CJEU) – notably cases C-418/04 and C-183/05 - found that Ireland had not adequately transposed the two Directives. Part 6 of the European Communities (Birds and Natural Habitats) Regulations 2011-2015 is therefore relevant in dealing with the protection of flora and fauna since the revoke of the European habitats Regulations of 1997. This consolidates the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgments.

Article 6 (3) of the Habitats Directive states that:
"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*".

As such any project likely to have a significant effect, either individually or in combination with other plans or projects, upon the conservation objectives of a Natura 2000 site must undergo an assessment of its implications on relevant Natura 2000 sites. In order to establish whether or not a likely significant effect will arise as a result of the implementation of a project a Screening Assessment should be undertaken. It is therefore deemed necessary to screen the project for the potential to result in significant negative effects to the published conservation objectives of Natura 2000 sites. The applicant is therefore submitting this NIS to allow the consent authority, An Bord Pleanala , to carry out an Appropriate Assessment on the application for substitute consent as submitted.

1.1.3 Stages of the Habitat Directive Assessment

Screening for Appropriate Assessment must be carried out to assess, in view of best scientific knowledge and in view of the conservation objectives of the relevant European site(s), if the proposed operation/activity on its own or in combination with other plans or projects is likely to have had a significant effect on the European site(s) (Regulation 42(1) of the 2011 Regulations). The likely effects of all aspects of the operation must be considered and screened in combination with other operations and other management activities which are completed, commenced, permitted, or proposed and other developments that could act in combination. It must be determined that an Appropriate Assessment is required if it cannot be excluded on the basis of objective scientific information, following screening, that the project, alone or in combination with other plans or projects will have a significant effect on the European site(s) (Regulation 42(6)). The precautionary principle should be applied in reaching this determination, i.e. where there is uncertainty or a lack of data, it should not be assumed that significant effects will not result.

The Appropriate Assessment process consists of four stages as summarised below in sequential order. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required. Stages 1 and 2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4, which is the main derogation step to Article 6(4).

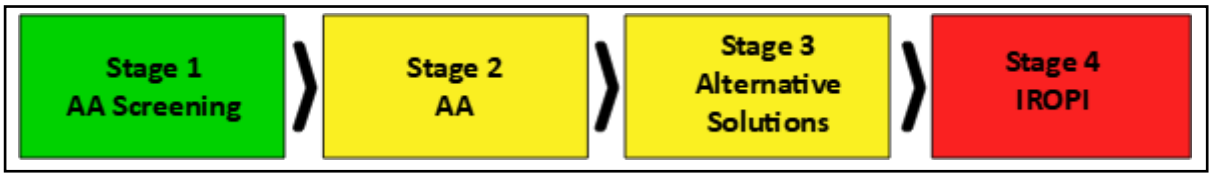


Figure 1.2: Stages of Screening

Stage 1 – Screening for any likely significant impacts. Screening involves an initial assessment of the project or plan's effect on a Natura 2000 site(s). If it cannot be concluded that there will be no significant effect upon a Natura 2000 site, an Appropriate Assessment is required. The process addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

II. whether a plan or project is directly connected to or necessary for the management of the site, and

II. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impact. This report provides the information necessary to enable the appropriate authority to screen the proposed development for the requirement to prepare an Appropriate Assessment.

Stage 2 – Appropriate Assessment (Natura Impact Statement or NIS): The consideration of the impact on the integrity of the Natura 2000 site(s) from the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage 3 – Assessment of alternative solutions: The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site. The process must return to Stage 2, as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage 4.

Stage 4 – Assessment where no alternative solutions exist and where adverse impacts remain: Stage 4 is the main derogation process of Article 6(4), which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed. The Commission must be informed of the compensatory measures. Compensatory measures must be practical, implementable, likely to succeed, proportionate and enforceable, and they must be approved by the Minister. Each listed stage determines whether a further stage in the process is necessary. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site(s), there is no requirement to proceed further.

Following on from Article 6(3) of the Habitats Directive the objective of this Natura Impact Statement is to screen for "Likely Significant Effects" and to conclude whether or not the proposed activity is likely to result in significant adverse effects to the integrity of any Natura 2000 sites within the zone of influence. The appraisal of adverse effects to the integrity of these sites will be established by assessing the potential impacts the proposal will have on the conservation objectives of said Natura 2000 sites. This report will also detail measures that will avoid, reduce, and mitigate any such adverse effects.

1.2 Guidance Documents

This NIS was carried out in accordance with relevant guidance, in particular:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, 2010.
- European Commission. Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg, 2018.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC. European Commission, 2002.
- Guidance Document on Article 6 (4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission. European Commission, 2007 / 2012.
- Habitats Directive and environmental assessment of plans and projects. García Ureta, A. Journal for European Environmental and Planning Law 2, 8496, 2007.
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.
- Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites. Circular letter PD 2/07, NPWS 1/07.
- Compliance of Existing Land Use Plans with the EU Habitats Directive. Department of Environment, Heritage and Local Government (2011) Circular Letter PSSP 5/2011.
- Communication from the Commission on the precautionary principle (European Commission, 2000)
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019).
- Assessment of plans and projects in relation to Natura 2000 Sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC Brussels, 28.9.2021 C (European Commission, 2021); and,
- Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021

1.3 Statement of Authority

This Remedial Natura Impact Statement has been compiled by Shannen McEwen, Ecologist with Greentrack. Shannen holds a BSc. (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.

2 APPROACH AND METHODOLOGY

2.1 Approach

The function of this rNIS is to identify whether the existing development has had any likely significant effect on the Natura 2000 sites as detailed. The nature of the likely interactions between the development and the integrity of the site will depend upon:

a) sensitivity of the site's qualifying interests to potential impacts arising from the development
b) current conservation status of the sites and
c) the likely changes that have and will result from activities associated with the development, in combination with other plans and projects

2.2 Methodology

The methodology used for this rNIS is undertaken in the following stages:

- Review the project to determine if it had the potential to affect the Natura 2000 sites identified in AA screening.
- Identify other plans or project that, in combination with this project, have had the potential to affect Natura 2000 sites.
- Mitigation measures are currently in place at the site and where perceived threats are identified, proposed mitigation will be proposed to offset/reduce/avoid the magnitude of the impact.
- Residual Impacts on the identified Natura 2000 will be assessed.

3 THE PROJECT AND NATURA 2000 BASE LINE

The Article 6(3) Stage 1 Screening Report for Appropriate Assessment (Appendix I) identified potential pathways for the existing development, which may have resulted in significant effects on the following European Sites:

- River Finn SAC Site Code 002031
- River Foyle and Tributaries SAC Site Code UK0030320
- River Foyle, Mongavlin to Carrigans Pnha Site Code 002067

The River Foyle and Tributaries SAC and the River Foyle Mongavlin to Carrigans pNHA have both been included in this assessment following the principles of best practice. The River Foyle and Tributaries SAC is located in Northern Ireland and since 1 January 2021, nature conservation areas in the UK (including Northern Ireland) are no longer considered to be a part of the Natura 2000 network[1]. River Foyle Mongavlin to Carrigans pNHA is not a designated Natura 2000 site but pNHA sites are still offered protection under planning legislation which requires that planning authorities give recognition to their ecological value[2].

3.1.1 River Finn SAC

3.1.2 Pathway for Effect

The pathway for indirect effects on this SAC exists through surface water runoff. No direct effects such as habitat loss or fragmentation on the SAC are predicted to have occurred. This hydrological pathway presents the possibility for indirect effects on water resource quality within the SAC through runoff/discharge contaminated with silt, hydrocarbons, or other pollutants.

3.1.3 Qualifying Interests

River Finn SAC is designated for the following qualifying interests:

- **[3110] Oligotrophic Waters containing very few minerals**
- **[4010] Wet Heath**
- **[7130] Blanket Bogs (Active)***

- **[7140] Transition Mires**
- **[1106] Atlantic Salmon *(Salmo salar)***
- **[1355] Otter (*Lutra lutra)***

3.1.4 Conservation Status

Table 3.1 provides the conservation status and objectives of the Special Conservation Interests of River Finn SAC.

Table 3.1: Conservation Status of Special Conservation Interests of the River Finn SAC

Special Conservation Interests	Conservation Objective	Baseline Cover
[3110] Oligotrophic Waters containing very few minerals	To restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in River Finn SAC	880.29Ha
[4010] Wet Heath	To restore the favourable conservation condition of Northern Atlantic wet heaths with *Erica tetralix* in River Finn SAC	165.05 Ha
[7130] Blanket Bogs (Active)*	To restore the favourable conservation condition of Blanket bogs (*if active bog) in River Finn SAC	880.29 Ha
[7140] Transition Mires	To restore the favourable conservation condition of Transition mires and quaking bogs in River Finn SAC	55.02 Ha
[1106] Atlantic Salmon *(Salmo salar)*	To maintain the favourable conservation condition of Atlantic Salmon in River Finn SAC	N/A
[1355] Otter (*Lutra lutra)*	To maintain the favourable conservation condition of Otter in River Finn SAC	N/A

A matrix of threats and pressures with impacts on the SAC as outlined in the Natura 2000 standard data form (Updated September 2019, available at NPWS website) are presented in Table 3.2.

Table 3.2: Threats and pressures with impacts on the SAC

Negative Impacts		
Rank	**Threats and Pressure**	**Inside/Outside/Both**
L	**F05.04** Poaching	**I**
L	**E04** Structures, buildings in the landscape	**I**
H	**C01.01** Sand and gravel extraction	**I**
H	**B02.02** Forestry clearance	**I**
H	**C01.03.01** Hand cutting of peat	**I**
M	**H01.05** Diffuse pollution to surface waters due to agricultural and forestry activities	**I**
M	**E03.01** Disposal of household / recreational facility waste	**I**
M	**K01.01** Erosion	**I**
H	**A04.01** Intensive grazing	**I**

3.2 River Foyle and Tributaries SAC

The pathway for indirect effects on this SAC exists through surface water runoff. No direct effects such as habitat loss or fragmentation on the SAC are predicted to have occurred. This hydrological pathway presents the possibility for indirect effects on water resource quality within the SAC through runoff/discharge contaminated with silt, hydrocarbons, or other pollutants.

3.1.2 Qualifying Interests

River Foyle and Tributaries SAC is designated for the following qualifying interests:

- **[1106] Atlantic Salmon *(Salmo salar)***
- **[1355] Otter (*Lutra lutra)***
- **[3260] Water courses of plain to montane levels with the Ranunculus fluitans and**

Callitricho-Batrachion vegetation

3.1.3 Conservation Status

Table 3.3 provides the conservation status and objectives of the Special Conservation Interests of River Foyle and Tributaries SAC.

Table 3.3:
Conservation Status of Special Conservation Interests of the River Foyle and Tributaries SAC

Special Conservation Interests	Conservation Objective	Baseline Cover
Atlantic Salmon *(Salmo salar)*	• Maintain and if possible, expand existing population numbers and distribution (preferably through natural recruitment), and improve age structure of population. • Maintain and if possible, enhance the extent and quality of suitable Salmon habitat - particularly the chemical and biological quality of the water and the condition of the river channel and substrate.	N/A
Water courses of plain to montane levels with the Ranunculus fluitans and Callitricho-Batrachion vegetation	• Maintain and if possible, enhance extent and composition of community. • Improve water quality • Improve channel substrate quality by reducing siltation. • Maintain and if feasible enhance the river morphology	N/A
Otter *(Lutra lutra)*	• Maintain and if possible, increase population numbers and distribution. • Maintain the extent and quality of suitable Otter habitat, in particular the chemical and biological quality of the water and all associated wetland habitats	N/A

3.3 River Foyle, Mongavlin to Carrigans pNHA

3.3.1 Pathway for Effect

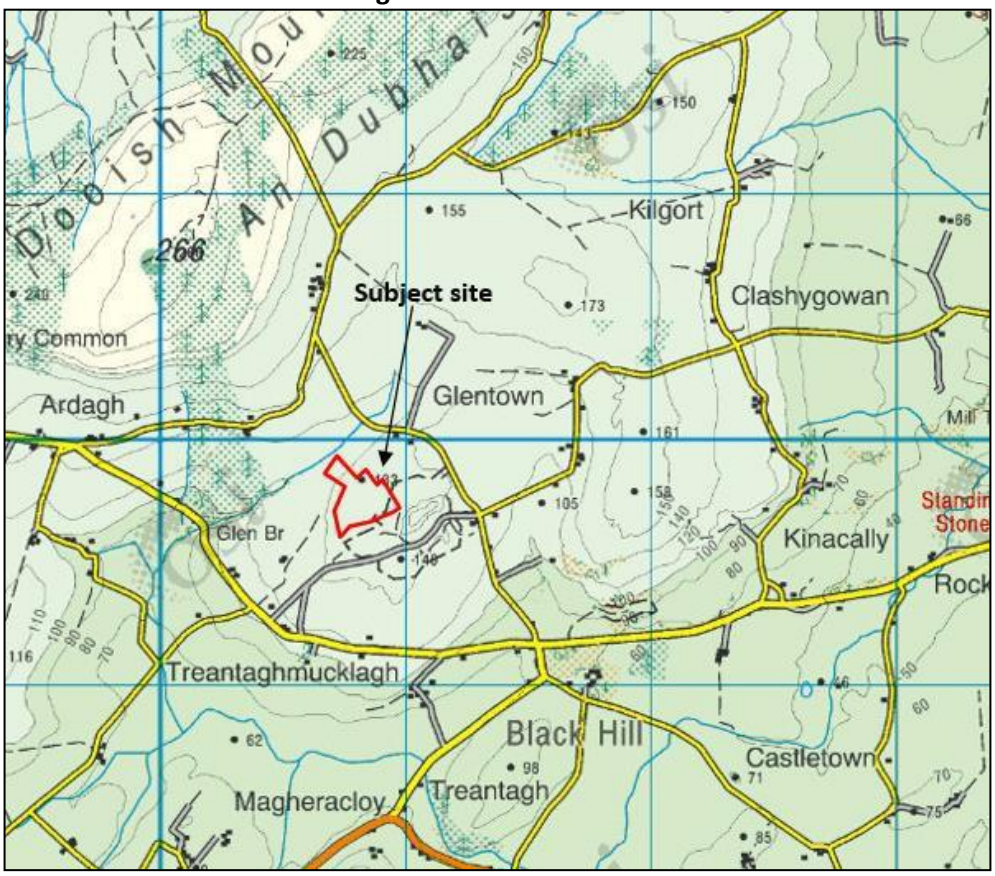
The pathway for indirect effects on this pNHA exists through surface water runoff. No direct effects such as habitat loss or fragmentation on the pNHA are predicted to have occurred. This hydrological pathway presents the possibility for indirect effects on water resource quality within the pNHA through runoff/discharge contaminated with silt, hydrocarbons, or other pollutants.

4 THE RECEIVING ENVIRONMENT

4.1 General Location

The subject site is located approximately 4km west of the town of St Johnston in east Co. Donegal. The site is located in the townland of Trentamucklagh and is served by the local road, L-5414. Access to the quarry is off this local road via a concrete and hardcore access road. The site is surrounded by agricultural grassland on all sides apart from to the east where a quarry face separates the site and a separate quarry operated by a different owner. An extensive area of commercial forestry lies to the north and northwest of the site, flanking the slopes of Dooish Mountain. The site location is outlined in Figure 4.1.

Figure 4.1: Site location



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4.2 Site Description and Biodiversity

Greentrack conducted multiple site visits over a six-month period from January – June 2022. A phase 1 habitat survey was conducted during the initial site walkover using guidelines produced by the JNCC[3] in conjunction with Fossitt's Guide to Habitats in Ireland[4]. This was compared to the Ordnance Survey Ireland (OSI) maps for the Site prior to the existence of the current workings. Following on from this an impact assessment was carried out to establish any impacts of quarrying related activities on habitats, flora and fauna (biodiversity features). The following habitats listed in Table 4.1 were recorded within the subject site. Habitat classification was informed by results from the dedicated survey. Full details of the survey are provided in the accompanying EIAR (Section 6 – Biodiversity).

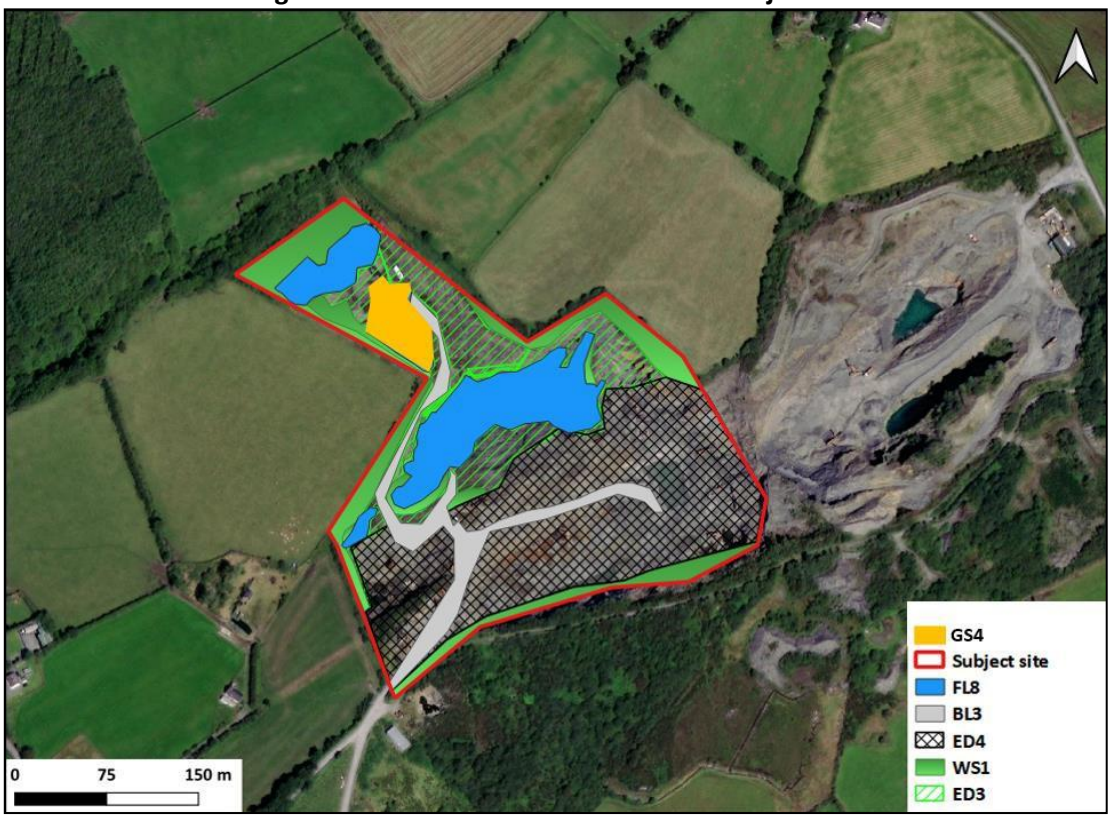
Table 4.1: Habitats on Site

Habitat Type within the extraction site	
ED4	Active quarries and mines
WS1	Scrub
Other habitats within the subject site	
GS4	Wet grassland
WS1	Scrub
FL8	Other artificial lakes and ponds
ED3	Recolonising bare ground
FW4	Drainage ditches

[3] JNCC. (2010) Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit. Joint Nature Conservation Committee, Peterborough.
[4] J. Fossitt. (2000) A Guide to Habitats in Ireland. The Heritage Council, Dublin

Habitat classification data was used to produce the habitat map presented as Figure 4.2. Guidelines from the Heritage Council[5] were used to form the basis of the mapping exercise. A survey area was delineated in the immediate vicinity of the subject site with a view to representing adjacent or proximal habitats. Data gathered was used to produce a thematic habitat map (Figure 4.2) illustrating the relative position and scale of habitats in the study area. However, position and scale of habitats shown are approximate only and should be considered only as a broad representation of the study area.

Figure 4.2: Current habitats within the subject site



(Created using QGIS software)

Desk research also identified a variety of avian species recorded in the vicinity of the existing development. Multiple bird observation reports were conducted over a 2-month period, encompassing the entire footprint of the quarry site. As the quarry site is active, the faces do not provide any suitable habitat for birds. The site boundaries and settlement ponds recorded the most bird activity. The site boundaries of scrub vegetation provide good cover, foraging and habitat connectivity. Several species of bird were recorded during the survey including:

- Jackdaw
- Rook
- Robin
- Blackbird
- Song thrush
- Blue tit
- Great tit
- Meadow pipit
- Collared dove
- Pied wagtail
- Siskin
- Stonechat
- Wren

4.3 Hydrology

The subject site is located within the North-western River Basin District, hydrometric area 01 – Foyle (BGNIIENW) and Johnston Stream sub catchment area (JohnstonStream_SC_010), and the St Johnston River Sub Basin (St Johnston_010). Site drainage, surface water runoff and water management within

[5] Smith, G. F., O'Donoghue, P., O'Hara, K., Delaney, E (2011) Best Practice and Guidance for Habitat Surveying and Mapping. Heritage Council

the current site are schematically represented in Figure 8.4 within Section 8 of the accompanying rEIAR. Dominant flow direction in the region is east towards the River Foyle.

There is a single outflow from the site to a tributary of the St Johnston Stream on the northern boundary of the site. The outflow is through a vegetated channel from the permanent wetland area/secondary settlement pond in the northern portion of the site. This channel discharges into the St Johnston stream and flows onwards into the Foyle system which is designated under the River Finn SAC and River Foyle & Tributaries SAC. All effluent is treated through the robust settlement system before discharge offsite and has been under licence since 2009.

5 CHARACTERISTICS OF THE DEVELOPMENT

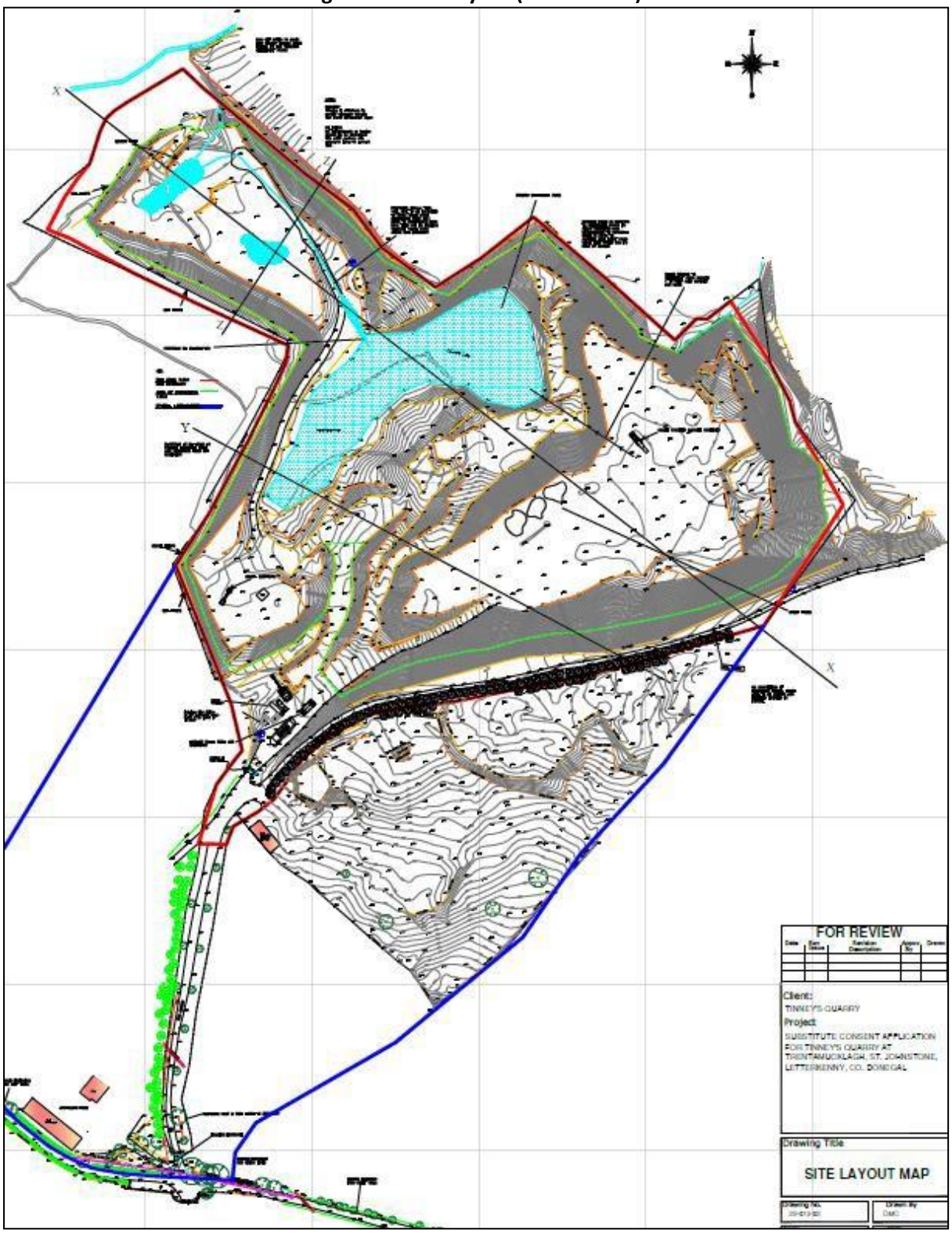
The development of the site as a quarry has been sporadic but ongoing for c. 200 years. Activities on site by the current applicant have been relatively simple in quarrying terms with the extraction, crushing and screening of rock and transport to market. The requirement for blasting has been infrequent and most of the extraction has taken place by mechanical means. Mobile crushers/screeners have been employed moving around the site following extraction activity. Stockpiles of product were generally located near the screeners and transport to market was via rigid lorry. Customers could also bring their own transportation and purchase product directly from the site.

The proposed extraction and processing of rock at the site is a dry operation. There is no washing of the crushed product before it leaves site for market. The only requirement for water usage during the extraction and processing activities has been for dust suppression in periods of dry weather.

Effluent treatment has been by settlement. Current effluent generated in the quarry void is pumped to Settlement Pond 1 for settlement treatment and then flows through Settlement Pond 2 for further treatment before discharge off site to a tributary of the St Johnston Stream. The site discharge has been under licence (Lwat67) from Donegal County Council since 2009. Noise abatement and dust control measures have been employed by the applicant for all activities on site.

Mature landscaped berms have been created on most of the perimeter of the site to screen workings. Currently the quarry employs four persons and output is estimated at approximately 5 loads per day. Historically for periods of boom times there may have been up to 10 people working in the quarry and output would have peaked during these times at 20 loads per day. Further details on the characteristics of development are provided in *Section 3*, *Project Description*, of this rEIAR. Figure 5.1 below shows the current site layout.

Figure 5.1: Site layout (Not to scale)



5.1 Potential impacts from clearance and stripping works within the northern portion of the site

5.1.1 Loss of habitat from site clearance and stripping works

Extraction practices will have involved a certain amount of site clearance of overburden and bedrock to create the correct levels for the development of site infrastructure. The northern portion of the site was stripped and excavated between 2000-2010 according to information supplied by the applicant. Examining old aerial imagery from 1995-2012 (Figures 6.4 to 6.7 within chapter 6 of the

accompanying rEIAR), habitat within the northern portion of the site appears to have been improved agricultural grassland (GA1) and scrub (WS1). C. 3.25 ha of grassland and scrub habitat are estimated to have been lost. Both habitats are of poor ecological value and are very common in the surrounding environs.

The stripped overburden was re-used within the site for the creation of screening berms (2-3m in height) along the boundaries of the site. These berms have been largely colonised by native species and have integrated the development into the landscape. The screening berms provide both visual and acoustic screening of the site from most of the surrounding environs. The addition of the berms has improved the quality of cover for wildlife and has increased biodiversity within the site as well as increasing connectivity within the site, providing a link between the site and the block of commercial forestry to the north and northwest of the site.

Stripping and clearance works could have given rise to sedimentation if unmitigated against. In order to prevent any negative effects occurring on the Natura 2000 network as a result of this development, prior to site clearance, the site was prepared with environmental protection measures. Further details of environmental protection measures which were in place and others to be implemented are outlined in Section 6.

5.1.2 Storm/Surface Water Drainage

It is likely that the main contaminant arising from activities on site would have been suspended sediment contained within runoff. Effluent from the extraction and processing areas has been treated by settlement. Over the course of recent extraction history (1978 – 2022) all areas of the site have been worked out to varying degrees. Information from the applicant states that runoff from extraction and processing areas was always directed towards the nearest available pond/sump for settlement treatment before any potential discharge from site. There are no records available of particular sizes/depths of settlement ponds used over the course of extraction history. All relatively recent extraction and processing activities have taken place within the main quarry void. The northern portion of the site around Settlement Ponds 1 & 2 was last worked c. 2010. The northern outshot of the site where Settlement Pond 2 is located is now a redundant area of the quarry and has been let recolonise for biodiversity benefits.

Any surface water runoff within the main quarry void has been directed to any one of a number of temporary ponds within the void. The exact location of the temporary ponds changes with the extraction location on the quarry floor. This run off is then pumped to settlement pond 1 for treatment. Flow from Settlement Pond 1 to Settlement Pond 2 is currently via an unregulated surface flow. There is a proposal to pipe this connection to regularise the flow path. There is a single outflow from the site to a tributary of the St Johnston Stream on the northern boundary of the site. The outflow is through a vegetated channel from the permanent wetland area/secondary settlement pond in the northern portion of the site. Further details of the remedial and proposed mitigation measures are outlined in Section 6.

6 ASSESSMENT OF LIKELY EFFECTS AND MITIGATION MEASURES

The potential impact of the existing development can now be considered in phases:

1. Potential negative impacts during the construction/operational stage
2. Potential negative impact of the existing development in combination with other plans or projects.

Mitigation measures which have been in place at the quarry are described below. Any additional measures to avoid/mitigate the negative impacts will be prescribed to ensure the development will not have any significant negative effects on the integrity of the Natura 2000 network. Potential effects are described in this section.

6.1 Potential Adverse Effects

A source-receptor pathway exists to the Natura 2000 sites as listed above in the form of the surface water pathway on site. As identified during appropriate assessment screening (Appendix 1) , preventing runoff that could potentially impact water resource quality within European sites is essential to ensure no significant adverse effects occur. Possible disturbances to avian species due to predicted noise, dust and lighting also need to be assessed.

6.1.1 During Construction/Operational Stage

- **Earth Works:** Stripping works, rock extraction, rock crushing and screening, and stockpiling of aggregate and concrete product all have the potential to generate suspended sediment within the surface water runoff leaving the site.

Mitigation:

- Areas previously stripped for extraction were stripped in a controlled manner, thus reducing the risk of runoff containing silt according to the applicant.
- Drains and silt traps were in place throughout all excavation and works according to verbal information supplied by the client
- Runoff from extraction and processing areas was always directed towards the nearest available pond/sump for settlement treatment before any potential discharge from site.
- The robust settlement system treats all effluent before discharge offsite
- Discharge from the quarry is through a single discharge point and has been under licence since 2009.
- The quarry must continue to adhere to the terms and condition of the current water discharge licence.

- **Maintenance of Plant:** The use of hydrocarbon fuels and lubricants on site in vehicles and plant carries the potential for contamination of surface waters and groundwaters through leaks and accidental spillage. Any change in water quality could deleteriously affect sensitive aquatic faunal species.

Mitigation:

- All oils and lubricants are stored in a bunded area off site.
- Refuelling of plant on site is carried out using a fully bunded bowser or by licenced fuel contractor with mobile tanker.
- Drip trays are used for all refuelling operations. Best practice for refuelling is incorporated into the Environmental Management System for the site.
- Maintain the hydrocarbon interceptor (in line with the manufacturer's instructions) which will be installed into the drainage system immediately before discharge of surface waters off site.
- Regular inspections and maintenance scheduling must continue to take place for all plant and vehicles to minimise the potential for malfunction or leak.
- An emergency spill kit with oil boom, absorbers etc. must continue kept on site for use in the event of an accidental spillage/leak.
- Regular visual monitoring of all surface waters onsite (including settlement ponds) for any surface sheen or sign of potential hydrocarbon pollution must continue to be undertaken.
- Regular maintenance of settlement tanks must be undertaken to ensure efficiency and appropriate disposal of material removed.
- All extraction and material handling activities must be suspended for the duration of a red level rainfall warning issued by Met Eireann
- The site must maintain and continually update the environmental monitoring programme and monitor water, noise, dust, and blasting on a regular basis to demonstrate that the development is not having an adverse impact on the surrounding environment

❖ **Invasive Species Prevention Measures:** Importation of topsoil containing Invasive species could affect ecosystems within the Natura 2000 network.

Mitigation:

- The screening berms around the site boundaries were created from the stripped overburden from the extraction area. No topsoil was imported for berm creation
- Additional native species as listed within Section 15 of the accompanying EIAR must be planted within the existing site to improve the quality of cover for wildlife, further increase biodiversity within the site and increase connectivity within the site.

❖ **Dust Reduction**

Mitigation:

- Dust monitoring has been continuously carried out since the applicant took over the quarry and will continue to be carried out on a quarterly basis at the designated monitoring locations (see chapter 10 of the accompanying rEIAR)
- A mobile water tanker or a fixed pressurised water spray network must be regularly used to spray the surface of the haul roads during dry weather conditions to control dust emissions from trucks
- Dust monitoring has been continuously carried out since the applicant took over the quarry and will continue to be carried out on a quarterly basis at the designated monitoring locations (see chapter 10 of the accompanying rEIAR)
- A wheel wash, incorporating high pressure top and side spray bars must be installed at the exit of the quarry. All vehicles departing from the quarry must pass through this wash system.
- The quarry site entrance must be regularly maintained, especially during dry weather periods, to remove any accumulations of silt deposited on the road surface from trucks and other traffic departing from the quarry onto the public road being re-suspended by passing vehicles.
- Truck speeds must be controlled along unpaved haul roads within the quarry site and along the access road to reduce re-suspension of silt deposits on the road surface by the movement of trucks.
- All trailer loads carrying loose aggregates must be covered and checked at the weighbridge before departing from the quarry site.
- All screening berms around the site boundaries have been naturally recolonised by native vegetation which aids in eliminating wind-blown dust.
- The timing of operations must be optimised in relation to meteorological conditions
- Material in outdoor stockpiling must be conditioned with water to minimise dust during dry and windy conditions. In addition, stockpiles must be sited to take advantage of shelter from wind.
- Speed restrictions of 20 kph must be maintained to limit generation of fugitive dust (within site and access road).

❖ **Noise reduction**

Mitigation:

- Recorded noise levels from quarrying activity have been measured at a level well below typical guideline limit values.
- Plant used at the site must continue to have noise emission levels that comply with the limiting levels defined in EC Directive 86/662/EEC and any subsequent amendments. Any plant that is used intermittently must be shut down when not in use to minimise noise levels.
- All extraction and processing activities must continue to follow the guidelines as set within BS 5228 -1:2009+A1 2014. This includes guidance on several aspects of construction site practices, which include, but are not limited to: (a) Selection of quiet plant, (b) Control of noise sources, (c) Screening, (d) Hours of work.

- The best means practical, including proper maintenance of plant, must continue to be employed to minimise the noise produced by on-site operations.
- All vehicles and mechanical plant must be fitted with effective exhaust silencers and maintained in good working order for the duration of the contract.
- Compressors must be of the "sound reduced" models fitted with properly lined and sealed acoustic covers which must be kept closed whenever the machines are in use and all ancillary pneumatic tools must be fitted with suitable silencers.
- All motors and pulleys must be maintained to a high standard with regular maintenance so as to avoid any tonal or impulsive components in the emission.
- The screening berms around the site boundaries have naturally recolonised with a mixture of native shrubs which act an acoustic barrier for the site
- The processing plant (crushing and screening) generally has been located in the quarry floor area thereby giving maximum barrier attenuation effect.
- Proper management procedures (pre-blasting management procedures, loading management procedures and blasting management procedures) must be implemented and in place at all times moving forward.

❖ **Surface Water Drainage:** Inadequate Surface water drainage could lead to increased discharge of contaminated stormwater.

Mitigation:

- The subject site must continue to adhere to the terms and condition of the water discharge licence.
- All surface runoff must continue to be treated through the settlement pond system before discharge offsite to the St Johnston system.
- A hydrocarbon interceptor must be installed within the drainage system downstream of Settlement Pond 1.
- Regular monitoring and maintenance of the hydrocarbon interceptor must be undertaken in accordance with the manufacturer's specifications.
- Oil which accumulates within the hydrocarbon interceptor must be regularly removed by an appropriately licensed contractor.
- Regular maintenance of settlement ponds to ensure efficiency and appropriate disposal of material removed.
- Regular visual monitoring of all surface waters onsite (including settlement tanks) for any surface sheen or sign of potential hydrocarbon pollution must continue to be undertaken.
- Single discharge point must continue to be subject to the conditions of the trade discharge licence from Donegal County Council.

6.1.3 Cumulative Effects

Recent planning applications within the vicinity of the subject site and The Donegal County Development Plan 2018 -2024 were reviewed to cumulatively assess any impact on European Sites in combination with the existing development. There are no recent planning applications which need to be taken into consideration under the "cumulative effects"

Hydrological impact from the adjacent quarry needs to be examined under the cumulative effects. The adjacent quarry does not have a discharge point for. All runoff/effluent from the quarry is collected in a sump which appears to percolate into groundwater. No runoff/effluent from the adjacent quarry is therefore directly discharged to the St Johnston stream.

A landscaping and restoration plan has been prepared for the quarry to offset the impact that quarrying activity has had on habitat within the extraction area which is discussed in full detail in section 15 of the accompanying rEIAR. The losses of vegetation, as a result of removal of overburden

to allow extraction of rock, has been offset by the creation and maintenance of berms and the covering of same by translocated vegetation and judicious planting along the site boundaries. The berms also serve to reduce the long-term visual impact of the quarry

The greatest potential for increased biodiversity in relation to the subject site is after the operation has ceased. The aim of any natural restoration plan is to restore ecological balance and to produce self-sustaining plant and wildlife communities and habitats. The proposed restoration of the extraction site will allow for the creation of new habitats and the rewilding of this area for reclamation by nature which will have an overall positive effect on the biodiversity within the site. Upon cessation of activities, it is proposed flood the site to create a shallow lake (2-3m deep). Chapter 15 within the accompanying rEIAR details the restoration plans for the quarry.

The use of the settlement ponds and hydrocarbon interceptors to treat all storm runoff from the subject site is an acknowledgement of the “in combination” effects of continued development. This proposal is based on the applicant demonstrating “best practice” in relation to water quality management at all stages of construction. All works relating to this application and all future applications must conform to The Inland Fisheries Ireland “Guidelines on Protection of Fisheries during Construction works in and adjacent to Waters 2016”.

Table 6.1 details a full, comprehensive list of threats, source of threats and recommended mitigating measures at each stage of the development.

Table 6.1:
Mitigation Measures

Ref:	Construction/Operational Stage	Potential Threat	Source of Threat	Recommended Mitigation Measures
1.	The construction of berms and earth movement to facilitate construction activity may lead to discharge of suspended sediment load in runoff which may be directed to surface watercourses leading to the St Johnston Stream and ultimately to the River Finn SAC and River Foyle and Tributaries SAC.	Release of suspended sediments into surface and ground water leading to the SAC. This could affect the water quality and in turn affect the qualifying interests of the SAC Water and surface pollution reaching the SAC	Poor and/or inadequate management of site run off could result in sediment reaching the SAC. This could contribute to nutrient enrichment and sedimentation, causing a decline in water quality and habitat quality which would impact on the qualifying interests of the SAC General site run off may contain oil and other materials harmful to the environment. This runoff may cause a change in chemical and pH status of watercourses and subsequently the SAC. This could also result in a decrease in water quality, clarity and oxygen content which would impact negatively on the qualifying interests of the SAC.	**1.** Areas previously stripped for extraction were stripped in a controlled manner, thus reducing the risk of runoff containing silt according to the applicant. **2.** Drains and silt traps were in place throughout all excavation and works according to information supplied by the applicant **3.** The robust settlement system treats all effluent before discharge offsite. **4.** Discharge from the quarry is through a single discharge point and has been under licence since 2009. **5.** The quarry must continue to adhere to the terms and condition of the current water discharge licence. **6.** All oils and lubricants are stored in a bunded area off site. **7.** Refuelling of plant on site is carried out using a fully bunded bowser or by licenced fuel contractor with mobile tanker. **8.** Drip trays are used for all refuelling operations. Best practice for refuelling is incorporated into the Environmental Management System for the site. **9.** Maintain the hydrocarbon interceptor (in line with the manufacturer's instructions) which will be installed into the drainage system immediately before discharge of surface waters off site. **10.** Regular inspections and maintenance scheduling must continue to take place for all plant and vehicles to minimise the potential for malfunction or leak **11.** An emergency spill kit with oil boom, absorbers etc must continue to be kept on site for use in the event of an accidental spillage/leak. **12.** Regular visual monitoring of all surface waters onsite (including settlement ponds) for any surface sheen or sign of potential hydrocarbon pollution. **13.** Regular maintenance of settlement tanks must be undertaken to ensure efficiency and appropriate disposal of material removed.

	Standard quarry operations such as rock extraction, crushing and other manufacturing processes.	Pollution from dust and noise.	A build-up of dust in and around the subject site has the potential to be washed/blown into the SAC during heavy rains which could contribute to nutrient enrichment and sedimentation, causing a decline in water quality and habitat quality. The source of fill and materials and the transport of same could give rise to importing invasive species such as Japanese knotweed onto the site.	**14.** All extraction and material handling activities must be suspended for the duration of a red level rainfall warning issued by Met Eireann **15.** The site must maintain and continually update the environmental monitoring programme and monitor water, noise, dust, and blasting on a regular basis to demonstrate that the development is not having an adverse impact on the surrounding environment. **16.** The screening berms around the site boundaries were created from the stripped overburden from the extraction area. No topsoil was imported for berm creation. **17.** The screening berms have been colonised by native species and have integrated the development into the landscape. **18.** Native species as listed within Section 15 of the accompanying rEIAR must be planted within the existing site upon completion of construction to improve the quality of cover for wildlife, further increase biodiversity within the site and increase connectivity within the site. **19.** Dust monitoring has been continuously carried out since the applicant took over the quarry and will continue to be carried out on a quarterly basis at the designated monitoring locations. **20.** A filter bag must be in place on drill rig. **21.** A mobile water tanker or a fixed pressurised water spray network must be regularly used to spray the surface of the haul roads during dry weather conditions to control dust emissions from trucks. **22.** A wheel wash, incorporating high pressure top and side spray bars must be installed at the exit of the quarry. All vehicles departing from the quarry must pass through this wash system. **23.** The quarry site entrance must be regularly maintained, especially during dry weather periods, to remove any accumulations of silt deposited on the road surface from trucks and other traffic departing from the quarry onto the public road being re-suspended by passing vehicles. **24.** Truck speeds must be controlled along unpaved haul roads within the quarry site and along the access road to reduce re-suspension of silt deposits on the road surface by the movement of trucks.

		Disturbance to local wildlife.	Increased noise levels could have a negative effect on birds and humans and cause disturbance to both.	**25.** All screening berms around the site boundaries have been recolonised by native vegetation which had aided in eliminating wind-blown dust. **26.** The timing of operations must be optimised in relation to meteorological conditions. **27.** Material in outdoor stockpiling must be conditioned with water to minimise dust during dry and windy conditions. In addition, stockpiles must be sited to take advantage of shelter from wind. **28.** A water bowser/sprayer will be available at all times to minimise dust during dry and windy conditions. **29.** Speed restrictions of 20 kph maintained to limit generation of fugitive dust (within site and access road). **30.** Plant used at the site must continue to have noise emission levels that comply with the limiting levels defined in EC Directive 86/662/EEC and any subsequent amendments. Any plant that is used intermittently must be shut down when not in use to minimise noise levels. **31.** All operational activities must continue to follow the guidelines as set within BS 5228 -1:2009+A1 2014. This includes guidance on several aspects of construction site practices, which include, but are not limited to: (a) Selection of quiet plant, (b) Control of noise sources, (c) Screening, (d) Hours of work. **32.** The best means practical, including proper maintenance of plant, must continue to be employed to minimise the noise produced by on-site operations. **33.** All vehicles and mechanical plant must be fitted with effective exhaust silencers and maintained in good working order for the duration of the contract. **34.** Compressors must be of the “sound reduced” models fitted with properly lined and sealed acoustic covers which must be kept closed whenever the machines are in use and all ancillary pneumatic tools must be fitted with suitable silencers.

			Blasting operations can cause excessive noise and vibrations. Noise from blasting can be disturbing to neighbouring residents, nesting birds and local mammals.	**36.** All motors and pulleys must be maintained to a high standard with regular maintenance so as to avoid any tonal or impulsive components in the emission. **37.** The screening berms around the site boundaries have been recolonised by native vegetation which acts an acoustic barrier for the site. **38.** The processing plant (crushing and screening) generally has been located in the quarry floor area thereby giving maximum barrier attenuation effect. **39.** Proper management procedures (pre-blasting management procedures, loading management procedures and blasting management procedures) must be implemented and in place at all times moving forward. **40.** The subject site must continue to adhere to the terms and condition of the water discharge licence. **41.** All surface runoff must continue be treated through the settlement pond system before discharge offsite to the St Johnston system. **42.** A hydrocarbon interceptor must be installed within the drainage system downstream of Settlement Pond 1. **43.** Regular monitoring and maintenance of the hydrocarbon interceptor must be undertaken in accordance with the manufacturer's specifications. **44.** Oil which accumulates within the hydrocarbon interceptor must be regularly removed by an appropriately licensed contractor. **45.** Regular maintenance of settlement ponds to ensure efficiency and appropriate disposal of material removed. **46.** Regular visual monitoring of all surface waters onsite (including settlement tanks) for any surface sheen or sign of potential hydrocarbon pollution must be undertaken. **47.** Single discharge point must continue to be subject to the conditions of the trade discharge licence from Donegal County Council.

Ref:	In Combination Stage	Potential Threat	Source of Threat	Recommended Mitigation Measures
2.	In combination with other existing or planned projects.	Increased development in this general area will increase the risk of water pollution, including siltation. This could lead to a significant negative effect on the water quality in the named Natura 2000 sites.	Runoff from this development could cause damage to qualifying interests of the identified Natura 2000 sites.	**48.** The use of the settlement ponds and hydrocarbon interceptor to treat all storm runoff from the subject site is an acknowledgement of the "in combination" effects of continued development. **49.** This proposal is based on the applicant demonstrating "best practice" in relation to water quality management at all stages of construction. All works relating to this application and all future applications must conform to The Inland Fisheries Ireland ***"Guidelines on Protection of Fisheries during Construction works in an adjacent to Waters 2016".***

7 ASSESSMENTS OF RESIDUAL EFFECTS

Potential direct effects on several European sites were identified. The potential effects included deterioration of water resource quality through contaminated runoff containing hydrocarbons and/or silt entering the hydrological pathway to the identified Natura 2000 sites. Existing and remedial mitigation measures have been detailed in Section 6 to ensure that potential negative effects on water quality are rendered negligeable. Therefore, with the implementation of mitigation there is no significant residual effect predicted to have arisen from existing development, either individually or in-combination with other plans or projects, on any Natura 2000 site

8 CONCLUSION

This remedial Natura Impact Statement has been prepared by Greentrack Consultants with all reasonable care, due diligence, and professional application. Greentrack have also sought to implement the best current scientific knowledge on the potential effect this proposal will have on the Natura 2000 network.

The existing project as detailed, either individually or in combination with other plans or projects, has not had any significant adverse effects on the integrity of any European sites with the implemented remedial mitigation measures as outlined in section 6. Further mitigation measures must be implemented moving forward to ensure that the existing development will continue to have no significant negative effects on the Natura 2000 network.

The existing development as described has not, nor will not alter the structure or function of any Natura 2000 site or negatively impact the conservation of any qualifying interest/ special conservation interest therein.

Dated: 11/07/2022

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APPENDIX I: Appropriate Assessment Screening Report

Environmental Consultants

Screening Report for Appropriate Assessment

Screening Report for Appropriate Assessment in relation to planning application by Tinneys Quarry for substitute consent for the quarry located at Trentaghmucklagh, St Johnston, County Donegal.

Greentrack Environmental Consultants

July 2022

DOCUMENT DETAILS

Client:	Tinneys Quarry
Project Title:	Stage 1 Screening Report for Appropriate Assessment
Project Number:	22.0207
Document Title:	AA Screening Report – Tinneys Quarry
Completion Date:	11th July 2022
Prepared By:	Greentrack Consultancy Limited 4 Roe House, Dry Arch Business Park, Letterkenny, Co. Donegal F92 NHT0 074 9126483

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1 INTRODUCTION

1.1 Background

Greentrack Consultants have been instructed by Ian Tinney of Tinney's Quarry, Trentaghmucklagh, St Johnston Co. Donegal to undertake this Stage 1 Screening Report for Appropriate Assessment under Article 6 of the EU Habitats Directive. The application is for substitute consent to An Bord Pleanála for the quarry located in Trentaghmucklagh, St Johnston, County Donegal.

This Screening Report has been prepared by Greentrack Consultants with all reasonable care, due diligence, professional application, and best scientific knowledge available to Greentrack at the time of writing. Information contained within this report is based on the interpretation of data collected and has been accepted by Greentrack in good faith. Greentrack accept no responsibility to any third party to whom this report is made known or available. Any such third parties rely on the findings of this report at their own risk. The aim of this screening report is to aid the Competent Authority in determining whether or not an "Appropriate Assessment" was required for the historical quarry operation. This report will assess any likely significant effects or impacts (if any) caused by the quarry and associated activities on any Natura 2000 sites within the zone of influence, both independently and in conjunction with other plans and projects.

1.2 Legislative Context

This rNIS is being submitted in conjunction with a rEIAR following the decision of An Bord Pleanala in November 2021 to grant leave to apply for Substitute Consent and this rNIS examines the potential impacts that could have occurred on the Natura 2000 network as a result of this quarry and associated activities In accordance with the Act, and specifically in accordance with Section 177E, as directed by the Board, both a Remedial Environmental Impact Assessment Report (rEIAR) and a Remedial Natura Impact Assessment (rNIS) are required. This Stage 1 Screening report is part of the requested rNIS.

Section 177T of the Planning and Development Act 2000 states the following with respect to meaning of a Natura Impact Statement:

1) (b) A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites.
2) Without prejudice to the generality of subsection (1), a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites.

Section 177G of the Planning and Development Act 2000 states the following with respect to required content of a Natura Impact Statement:

1) A remedial Natura impact statement shall contain the following:
    a. a statement of the significant effects, if any, on the relevant European site which have occurred or which are occurring or which can reasonably be expected to occur because the development the subject of the application for substitute consent was carried out;
    b. details of—
        i. any appropriate remedial or mitigation measures undertaken or proposed to be undertaken by the applicant for substitute consent to remedy or mitigate any significant effects on the environment or on the European site;
        ii. the period of time within which any such proposed remedial or mitigation measures shall be carried out by or on behalf of the applicant;
    c. such information as may be prescribed under section 177N;

d. and may have appended to it, where relevant, and where the applicant may wish to rely upon same:
    i. a statement of imperative reasons of overriding public interest;
    ii. any compensatory measures being proposed by the applicant

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "*The Habitats Directive*", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

> *Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*.

Article 6(4) states:

> *If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

1.3 Stages of the Appropriate Assessment Process

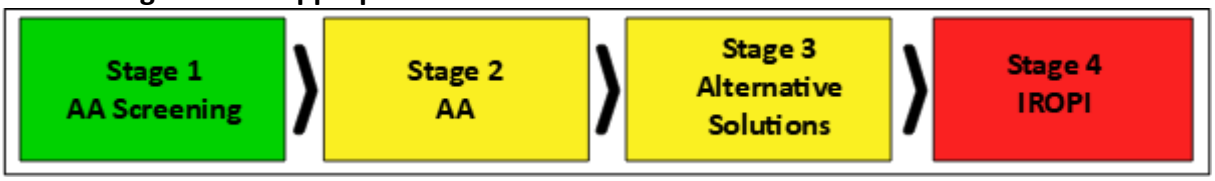


Figure 1.1: Stages of Screening

Stage 1 - Screening for any likely significant impacts. Screening involves an initial assessment of the project or plan's effect on a Natura 2000 site(s). If it cannot be concluded that there will be no significant effect upon a Natura 2000 site, an Appropriate Assessment is required. The process addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

III. whether a plan or project is directly connected to or necessary for the management of the site, and
IV. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impact. This report provides the information necessary to enable the appropriate authority to screen the proposed development for the requirement to prepare an Appropriate Assessment.

Stage 2 - Appropriate Assessment (Natura Impact Statement or NIS): The consideration of the impact on the integrity of the Natura 2000 site(s) from the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage 3 – Assessment of alternative solutions: The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site. The process must return to Stage 2, as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage 4.

Stage 4 – Assessment where no alternative solutions exist and where adverse impacts remain: Stage 4 is the main derogation process of Article 6(4), which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed. The Commission must be informed of the compensatory measures. Compensatory measures must be practical, implementable, likely to succeed, proportionate and enforceable, and they must be approved by the Minister. Each listed stage determines whether a further stage in the process is necessary. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site(s), there is no requirement to proceed further.

Following on from Article 6(3) of the Habitats Directive the objective of this report is to screen for "*Any Likely Significant Effects*" and to conclude whether or not an Appropriate Assessment is necessary for the proposed development. This report will screen the proposed development against the qualifying interests of Natura 2000 sites within its zone of influence and will examine any likely significant effects that the proposed activity may have on these sites.

2 METHODOLOGY

2.1 Approach

The methodology used for this screening report is undertaken in the following stages:

- Define the project and determine whether it is necessary for the conservation management of Natura 2000 sites.
- Identify Natura 2000 sites likely to be influenced by this development.
- Review the project to determine if it has the potential to affect the Natura 2000 sites and determine whether the Natura 2000 sites are vulnerable to the effect.
- Identify other plans or project that, in combination with this project, have the potential to affect Natura 2000 sites.
- If potential significant effects on Natura 2000 sites cannot be excluded at this stage, Stage 2 appropriate assessment is required.
- If potential significant effects on Natura 2000 sites can be excluded at this stage, Stage 2 appropriate assessment is not required.

2.2 Guidance Documents

This report was carried out in accordance with relevant guidance, in particular:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, 2009.
- European Commission. Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg, 2018.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC. European Commission, 2002.
- Guidance Document on Article 6 (4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission. European Commission, 2007 / 2012.
- Habitats Directive and environmental assessment of plans and projects. García Ureta, A. Journal for European Environmental and Planning Law 2, 8496, 2007.
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.
- Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites. Circular letter PD 2/07, NPWS 1/07
- Compliance of Existing Land Use Plans with the EU Habitats Directive. Department of Environment, Heritage and Local Government (2011) Circular Letter PSSP 5/2011.
- Communication from the Commission on the precautionary principle (European Commission, 2000)
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019).
- Assessment of plans and projects in relation to Natura 2000 Sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC Brussels, 28.9.2021 C (European Commission, 2021); and,
- Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021

2.3 Statement of Authority

This report has been prepared by Shannen McEwen, 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.

3 DESCRIPTION OF THE PROJECT

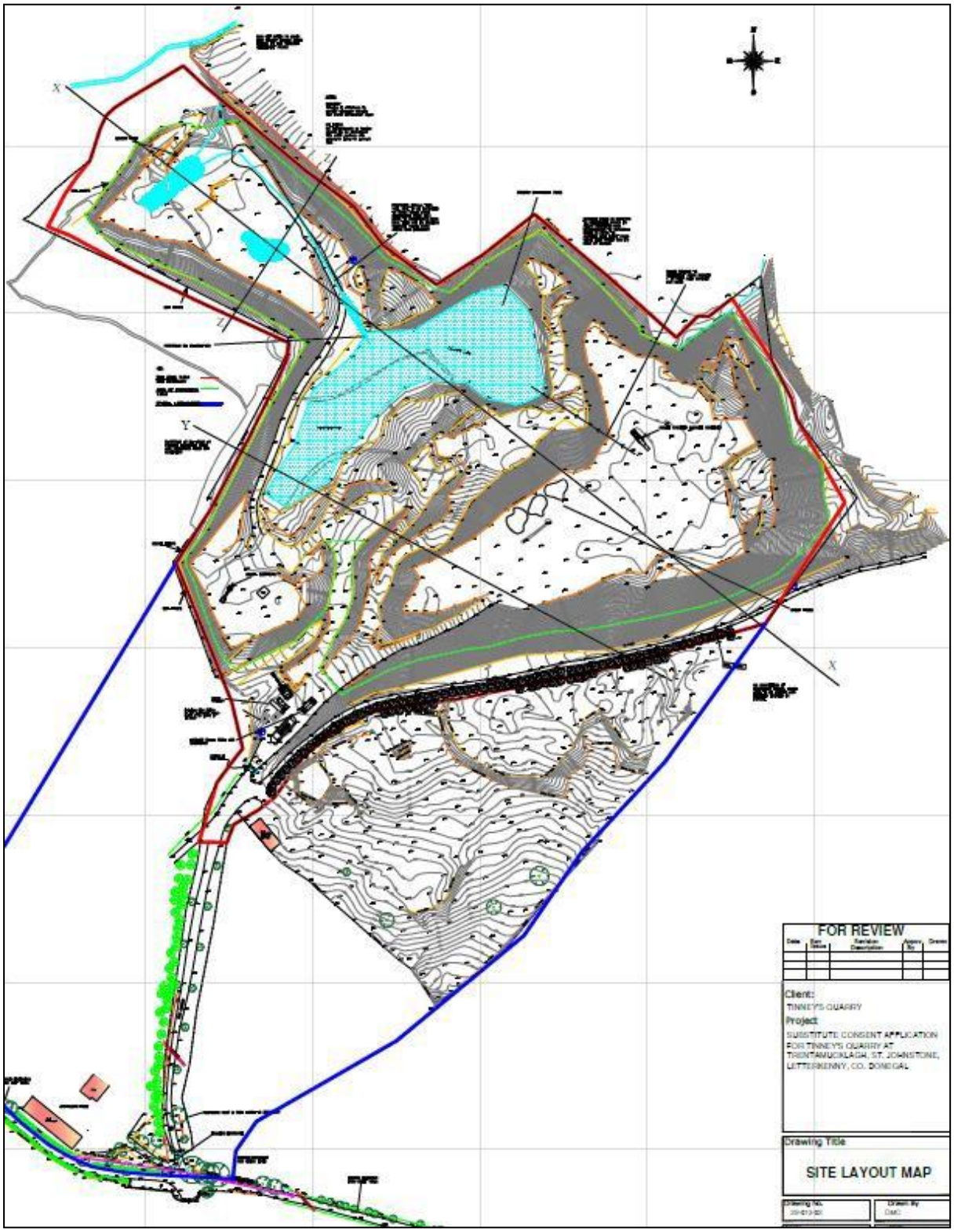
The development of the site as a quarry has been sporadic but ongoing for c. 200 years. Activities on site by the current applicant have been relatively simple in quarrying terms with the extraction, crushing and screening of rock and transport to market. The requirement for blasting has been infrequent and most of the extraction has taken place by mechanical means. Mobile crushers/screeners have been employed moving around the site following extraction activity. Stockpiles of product were generally located near the screeners and transport to market was via rigid lorry. Customers could also bring their own transportation and purchase product directly from the site. No washing of product took place on this site.

Effluent treatment has been by settlement. Current effluent generated in the quarry void is pumped to Settlement Pond 1 for settlement treatment and then flows through Settlement Pond 2 for further

treatment before discharge off site to a tributary of the St Johnston Stream. The site discharge has been under licence (Lwat67) from Donegal County Council since 2009. Noise abatement and dust control measures have been employed by the applicant for all activities on site.

Mature landscaped berms have been created along part of the site perimeter to screen workings. Currently the quarry employs four persons and output is estimated at approximately 5 loads per day. During the busy construction periods of the mid 2000's, up to ten people worked in the quarry and output would have peaked at 20 loads per day. Further details on the characteristics of development are provided in *Section 3*, *Project Description*, of this rEIAR. Figure 3.1 gives the current subject site layout.

Figure 3.1 Site layout (not to scale)

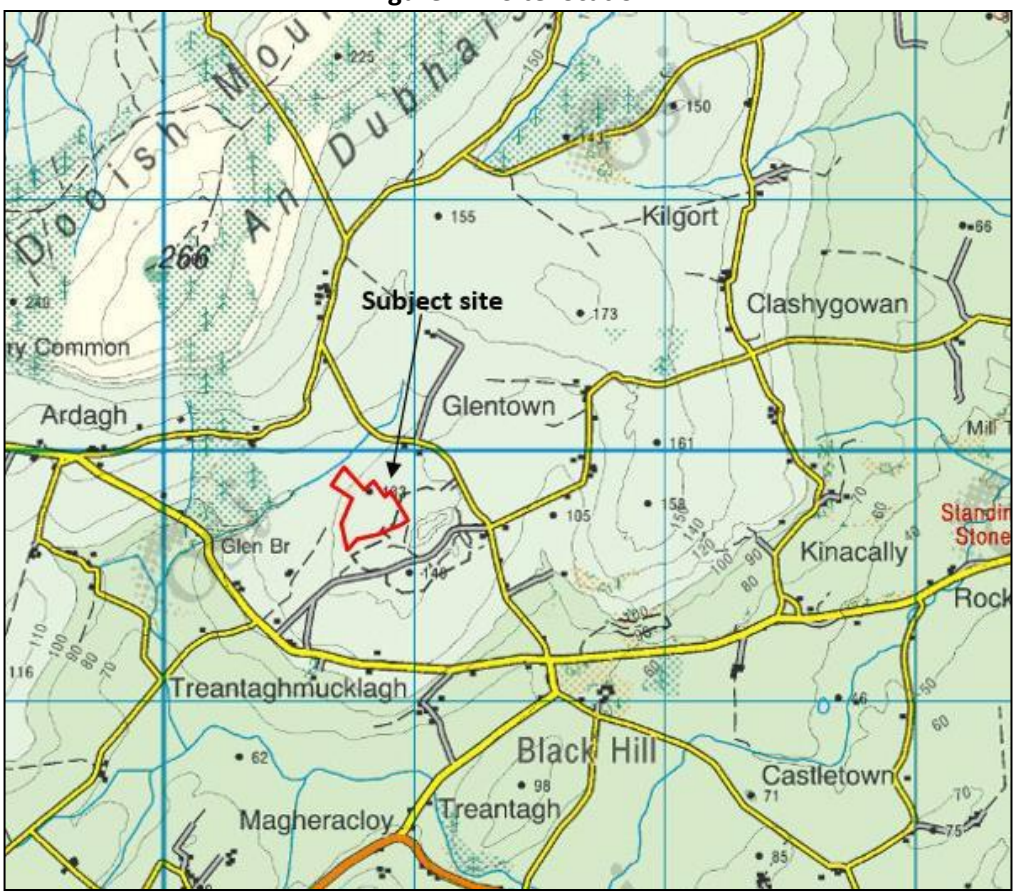


4 THE RECEIVING ENVIRONMENT

4.1 General Location

The subject site is located approximately 4 km west of the town of St Johnston in east Co. Donegal. The site is located in the townland of Trentamucklagh and is served by the local road, L-5414. Access to the quarry is off this local road via a concrete and hardcore access road. The site is surrounded by agricultural land on all sides apart from to the east where a quarry face separates the site and a separate quarry operated by a different owner. An extensive area of commercial forestry lies to the north and northwest of the site, flanking the slopes of Dooish Mountain

Figure 4.1: Site location



CYAL50244901 © Ordnance Survey Ireland/Government of Ireland

4.2 Site Description and Biodiversity

Greentrack conducted multiple site visits over a six-month period from January-June 2022. A phase 1 habitat survey was conducted during the initial site walkover using guidelines produced by the JNCC[6] in conjunction with Fossitt's Guide to Habitats in Ireland[7]. Habitat classification was informed by results from the dedicated survey. Full details of the survey are provided in the accompanying rEIAR (Section 6 – Biodiversity).

4.3 Hydrology

The subject site is located within the North-western River Basin District, hydrometric area 01 – Foyle (BGNIIENW) and Johnston Stream sub catchment area (JohnstonStream_SC_010), and the St Johnston River Sub Basin (St Johnston_010). Site drainage, surface water runoff and water management within

[6] JNCC. (2010) Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit. Joint Nature Conservation Committee, Peterborough.
[7] J. Fossitt. (2000) A Guide to Habitats in Ireland. The Heritage Council, Dublin

the current site are schematically represented in Figure 8.4 within Section 8 of the accompanying rEIAR. Dominant flow direction in the region is east towards the River Foyle.

There is a single outflow from the site to a tributary of the St Johnston Stream on the northern boundary of the site. The outflow is through a vegetated channel from the permanent wetland area/secondary settlement pond in the northern portion of the site. This channel discharges into the St Johnston stream and flows onwards into the Foyle system which is designated under the River Finn SAC and River Foyle & Tributaries SAC. All runoff is treated through the robust settlement system before discharge offsite and has been under licence since 2009.

5 NATURA 2000 SITES

5.1 Identification of Natura 2000 Sites

In terms of the identification of relevant Natura 2000 sites, the zone of impact (also known as the area of influence) is determined based on their potential connectivity (*source-pathway-receptor* model) to the proposed project in terms of, for example:

- Nature, scale, timing, and duration of works and possible impacts.
- Distance and nature of pathways (dilution and dispersion; intervening 'buffer' lands, roads *etc*.); and
- Sensitivity and location of ecological features.

The 'zone of influence' (ZoI) is essentially the effect area over which alterations may have potential ecological impact. The ZoI over which the proposed development may impact upon Natura 2000 Sites and their Qualifying Interests will vary for different ecological receptors, depending on the pathway for potential impacts, as well as the specific nature of the habitats/species (e.g., some species have ability to move/disperse, and some habitats have better ability than others to absorb impacts). Having considered the potential ecological impacts through source-receptor-pathway connectivity (e.g., hydrological link) and given the nature of the project, it was deemed that the zone of influence for such projects would be limited to a radius of 15 km as recommended by NPWS.

The Natura 2000 sites occurring within 15 km of the subject site are listed in Table 5.1 and are screened for possible threats from the development. Figure 5.1 indicates the relative locations of all listed Natura 2000 sites in relation to the subject site.

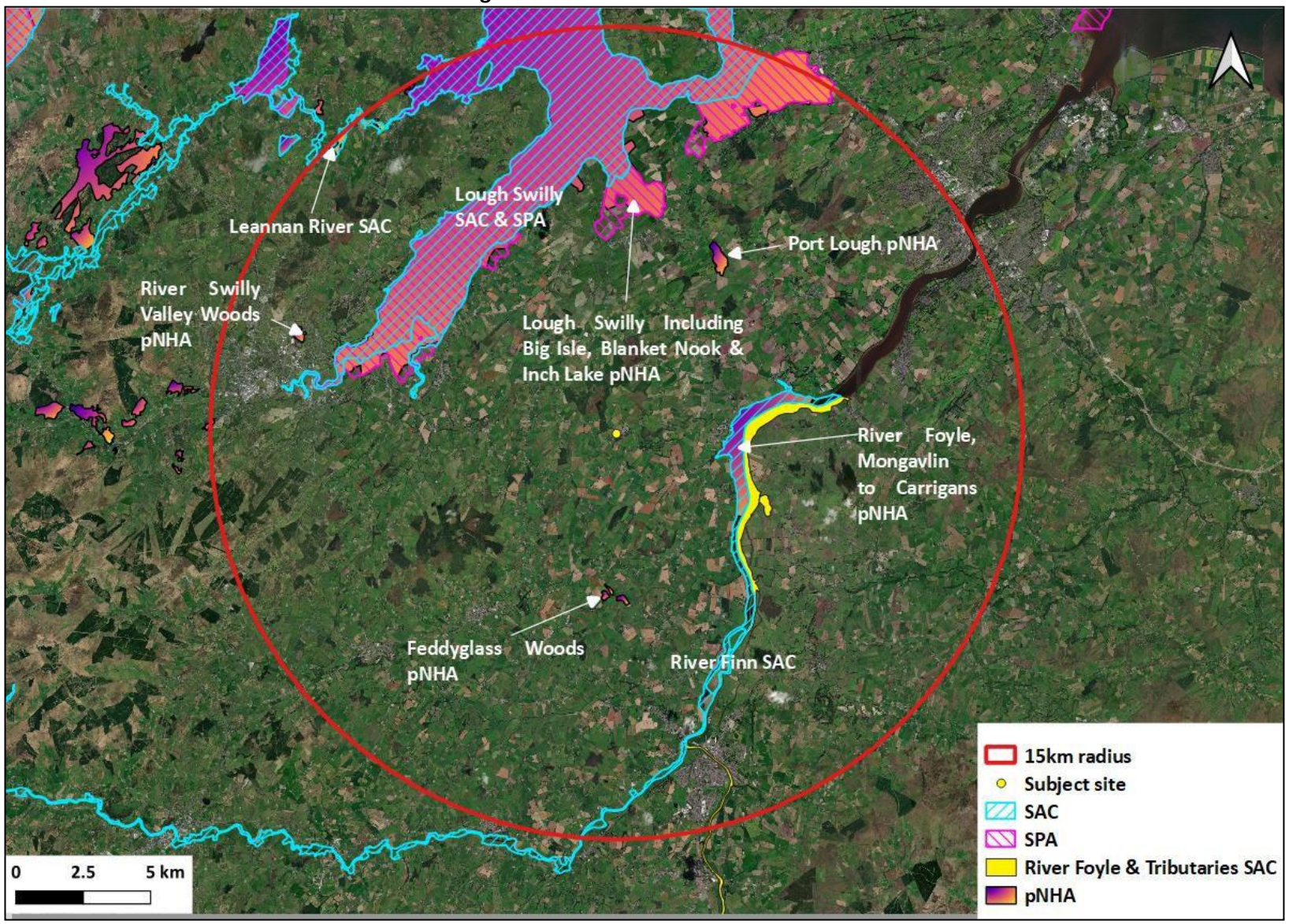
The River Foyle, Mongavlin to Carrigans pNHA site has been included in this assessment following the principles of best practice. This site is not a designated Natura 2000 site but pNHA sites are still offered protection under planning legislation which requires that planning authorities give recognition to their ecological value.

Table 5.1: Screening of Natura 2000 Sites within Zone of Influence

Site Name	Site Code	Distance from Subject Site	Avenue of Connectivity to Subject Site	Significant Threat Possible (Y/N)
River Finn SAC	002301	3.83km E	Through surface water run-off, potential for indirect effects.	**Y**
River Foyle and Tributaries SAC	UK0030320	4.76km E	Through surface water run-off, potential for indirect effects.	**Y**

Site Name	Site Code	Distance from Subject Site	Avenue of Connectivity to Subject Site	Significant Threat Possible (Y/N)
River Foyle, Mongavlin to Carrigans pNHA	002067	3.83km E	Through surface water run-off, potential for indirect effects.	**Y**
Feddyglass Woods pNHA	001129	5.68 km S	No avenue for direct effects or indirect effects.	N
River Swilly Valley Woods pNHA	002011	12.11km NW	No avenue for direct effects or indirect effects.	N
Port Lough pNHA	000180	7.05km NE	No avenue for direct effects or indirect effects.	N
Lough Swilly Including Big Isle, Blanket Nook & Inch Lake pNHA	000166	7.36km NW	Through surface water run-off, potential for indirect effects.	N
Lough Swilly SAC	002287	7.36km NW	Through surface water run-off, potential for indirect effects.	N
Lough Swilly SPA	004075	7.36km NW	Through surface water run-off, potential for indirect effects.	N

Figure 5.1: Proximal Natura 2000 sites



(Created using QGIS software)

Table 5.1 has identified potential source-pathway-receptor links to the following Natura 2000 sites:

- **River Finn SAC**
- **River Foyle and Tributaries SAC**
- **River Foyle, Mongavlin to Carrigans pNHA**

5.2 Conservation Status

The overall aim of the Habitats Directive is to maintain or restore the favorable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network. European and national legislation places a collective obligation in Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites. The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

The favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, is stable or increasing,
- and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future,
- and the conservation status of its typical species is favorable.

The favourable conservation status of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself,
- and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future,
- and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

6 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

The criteria adopted for this assessment are based on a detailed field and desk assessment of the influence the development may have on the Natura 2000 sites within the zone of influence and what, if any, impact this development will have on the Natura 2000 network. Table 6.1 further examines possible impacts to the Natura 2000 sites identified in Table 5.1. The impact determination is informed by the characteristics of the development and the likelihood of deleterious effects on the Natura 2000 network through identified pathways for pollution/ habitat degradation / habitat removal/ species disruption/ species loss.

Table 6.1: Impact Determination of the Existing Development on Natura 2000 sites

Natura 2000 Site	Qualifying Interests for which the site was selected/ Special Conservation Interest	Conservation Objectives	Impact determination
Special Areas of Conservation			
River Finn SAC	• **[3110]** Oligotrophic Waters containing very few mineral • **[4010]** Wet Heath • **[7130]** Blanket Bogs (Active)* • **[7140]** Transition Mires • **[1106]** Atlantic Salmon (Salmo salar) • **[1355]** Otter (Lutra lutra)	To maintain or restore the favourable conservation condition of the habitats and species for which the SAC has been selected for.	A source-receptor pathway exists to qualifying interests of this SAC in the form of the surface water pathway on site, representing an avenue for direct effects such as deterioration of water resource quality. Potential significant negative effects because of this development cannot be excluded at this stage and further assessment is required.
River Foyle and Tributaries SAC	• **[1106]** Atlantic Salmon *(Salmo salar)* • **[1355]** Otter (*Lutra lutra)* • **[3260]** Water courses of plain to montane levels with the Ranunculus fluitans and Callitricho-Batrachion vegetation • **[1095]** Sea lamprey (*Petromyzon marinus)* • **[1096]** Brook lamprey *(Lampetra planeri)* • **[1099]** River lamprey *(Lampetra fluviatilis)* • **[1029]** Freshwater Pearl Mussel (*Margaritifera margaritifera)*	To maintain or restore the favourable conservation condition of the habitats and species for which the SAC has been selected for.	A source-receptor pathway exists to qualifying interests of this SAC in the form of the surface water pathway on site, representing an avenue for direct effects such as deterioration of water resource quality. Potential significant negative effects because of the development cannot be excluded at this stage and further assessment is required.
River Foyle, Mongavlin to Carrigans pNHA	No data available	To maintain or restore the favourable conservation condition of the habitats and species for which the pNHA has been selected for.	A source-receptor pathway exists to qualifying interests of this pNHA in the form of the surface water pathway on site, representing an avenue for direct effects such as deterioration of water resource quality. Potential significant negative effects because of the development cannot be excluded at this stage and further assessment is required.

Having established the assessment criteria, the impacts associated with the development and associated works on the identified Natura 2000 sites, the development has been assessed with regard to all the qualifying interests/Special Conservation Interest. The impact determination table found significant effects cannot be excluded at this stage.

6.1 Cumulative Effects

Cumulative effects in combination with other plans or projects cannot be excluded at this stage.

7 CONCLUSION AND SCREENING STATEMENT

Following the assessment as detailed in this AA Screening Report, it is concluded that significant effects on the Natura 2000 network arising from the development, either individually or in combination with other plans or projects, cannot be excluded at this stage. Therefore stage 2 Appropriate Assessment is required.

This conclusion was reached based on objective information and in view of best scientific knowledge.

Date: 11/07/2022