Chapter 13:
MATERIAL ASSETS – SITE SERVICES

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13 MATERIAL ASSETS – SITE SERVICES

13.1 Introduction

This Chapter of the remedial Environmental Impact Assessment Report (rEIAR) evaluates the impact of the proposal on Material Assets – Site Services. They may be of either human or natural origin and the value may arise for either economic or cultural reasons.

The assessment is made by an examination of the material assets of the area and any potential impact that the proposed quarrying activities may have on existing surface water, water supply, foul drainage and utility services in the vicinity of the site as well as identifying proposed mitigation measures to minimise any impacts.

The material assets considered in this chapter of the rEIAR include Surface Water Drainage, Foul Drainage, Water Supply, Power, Gas and Telecommunications. These are resources that are valued and are intrinsic to the area.

13.2 Methodology

The information for the assessment of the impacts of the subject site was obtained from:

- The Environmental Protection Agency (EPA) 2022 – *'Guidelines on the information to be contained in Environmental Impact Assessment Reports'*
- The Environmental Protection Agency (EPA) 2015 – *'Draft Advice Notes for Preparing Environmental Impact Statements'*
- Donegal County Council 2018 – *'Donegal County Development Plan 2018-2024'*
- The Environmental Protection Agency (EPA) 2006 – '*Environmental Management Guidelines - Environmental Management in the Extractive Industry (Non-Scheduled Minerals)'*
- Site Visits

The material assets which have been identified as being within and adjacent to the site and which may be directly affected by the activities undertaken are addressed below. The EPA *' Guidelines on the information to be contained in Environmental Impact Assessment Reports'* (May 2022), states that the material assets should be addressed under the headings of:

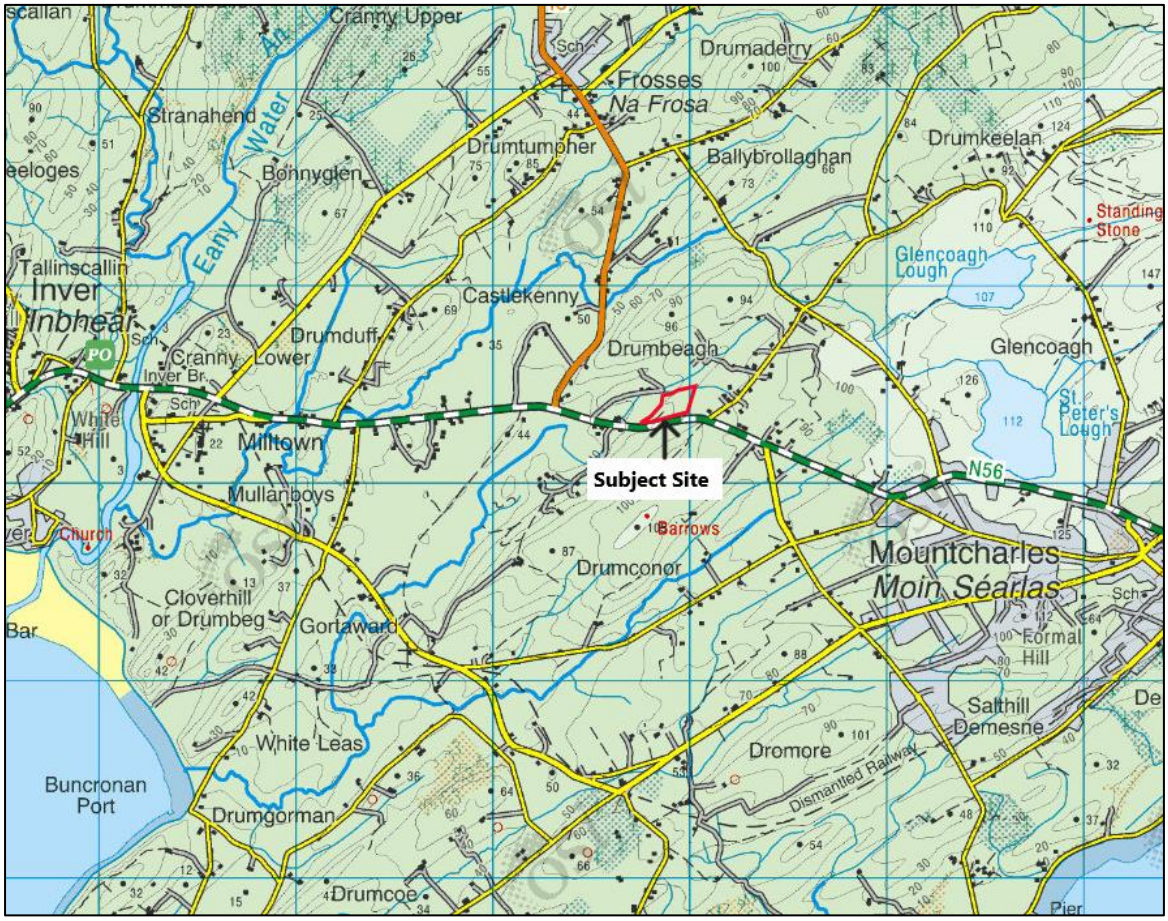
- Built Services
- Roads and Traffic (see Chapter 12, *Material Assets Traffic*)
- Waste Management

There is an element of cross-over between this section and certain other chapters. Some of the areas listed above are dealt with under the relevant chapters of the EIAR, for example impacts on Geological Heritage have been dealt with in Chapter 7, *Land, Soils and Geology*. Roads are dealt with under Chapter 12, *Material Assets – Traffic*. Designed Landscape is dealt with under Chapter15, *Landscape & Restoration*. Archaeological Heritage, Folklore, Architecture and Monuments have all been dealt with in Chapter 14, *Cultural Heritage*.

13.3 Existing Environment

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 subject site location is outlined in Figure 13.1 below.

Figure 13.1: Location of Subject Site



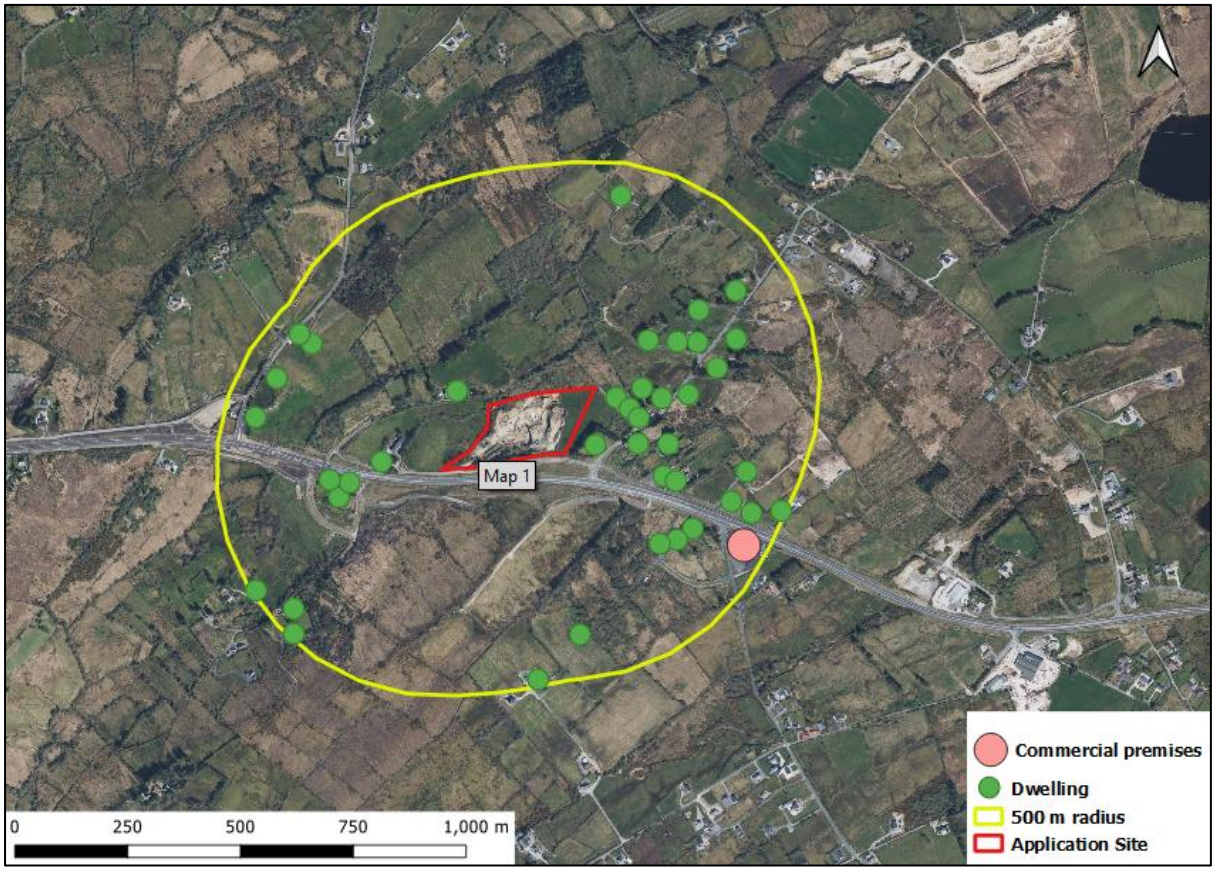
CYAL50381113 © Ordnance Survey Ireland/Government of Ireland

The applicant is applying for substitute consent for the site for previous quarrying activity at the site and continuation of extraction and grading of product.

13.3.1 Residential Buildings

The quarry is located in a rural area with once off housing and farmsteads abundant in the immediate vicinity. Figure 13.2 below shows all habitable dwellings within a 500m radius of the subject site. The principal sensitive receptors within the environs of the subject site are the residential properties predominantly to the west and east of the quarry. There are 40 dwellings within 500 m of the quarry boundary. Most are located along the N56 running east-west to the south of the quarry, along the L-65115-1 running north-south to the east of the quarry and along the R 262 running north-south to the west of the quarry. There is also one commercial premises, Kelly's Toyota dealership and garage located almost 500m southwest of the quarry along the N56.

Figure 13.2: Site Location in Relation to Local Dwellings



(Created using QGIS software and Bing satellite imagery)

13.3.2 Geological Resource

The area is underlain by sedimentary rocks belonging to the Mullaghmore Sandstone Formation which is part of the Dinantian Sandstone Group. The British Geological Survey describe the Mullaghmore Sandstone Formation as a brown to grey, fine to coarse-grained, silty, bioturbated interbedded with micaceous, carbonated mudstone and siltstone, immediately overlying basal Dromore Sandstone Member, are thin stromatolitic limestones, black ostracodal packstones and bitumous pyritous shales. The colour of the sandstone on site varies from a buff light brown to a grey/blue depending on the strata. Beds are seen to dip gently to the southeast. The rock cleaves very well and is suited to high end uses as facing stone, dimension stone and for ornamental uses (See chapter 7 of this rEIAR for full details on site geology).

There are two County Geological Sites near the application site:

- The nearest County Geological Site is the Mountcharles Sandstone Mine c. 1.5 km northeast of the site. The Mountcharles Sandstone Mine (DL029) is an old sandstone mine with extant adits and excellent exposures of the Mullaghmore Sandstone Formation.
- Doorin Point (DL012) is located c. 3.2 km southwest of the site, where there are good exposures of the Bundoran Shale Formation and composite dolerite dyke along a 6 km length of coast which exhibits coastal erosion.

13.3.3 Land Resource

The only undisturbed soils remaining on the site are in the far eastern side where extraction has not taken place. Almost all ground has been stripped of soil for excavation or for the creation of other site infrastructure. Pre-development the site is most likely to have been covered by the same soil type as that remaining in the east of the site – poorly drained mineral soils (mainly

acidic). The GSI describe the soil as a surface water Gley and the subsoil as a till derived from lower Carboniferous sandstones and shales. Many of the soils stripped from the site to facilitate extraction were used to create the screening berms on the eastern boundary of the site and along the northwestern boundary of the site. Most of these berms are now vegetated and providing excellent screening cover for the quarry.

Several nationally designated sites occur within 15km of the subject site. These include Proposed Natural Heritage Areas (pNHAs). No designated Natural Heritage Areas (NHAs) were noted within the 15km radius. Table 13.1 provides proximal Nationally Designated Sites and a preliminary impact determination for each.

Table 13.1: Impact Determination for Nationally Designated Sites.

Designated Site	Distance	Feature of Interest	Impact Determination
Donegal Bay (Murvagh) 000133	2.90 km SE	Coastal Habitat	No Source Pathway Receptor (SPR) Chain for effect surface water pathway from site drains to sea at Inver Bay after c.4.9km hydrological distance. Where surface water from site enters the SAC there is significant separation from the pNHA. There is no likelihood of effect.
Meenaguse/Ardbane Bog 000172	6.65 km N	Peatland	No Spr Chain for effect to this pNHA
Meenybraddan Bog 001177	7.13 km NW	Bog and Flush, Lake	No Spr Chain for effect to this pNHA
Lough Nillan Bog (Carrickatlieve) 000162	7.86 km N	Peatland	No Spr Chain for effect to this pNHA
Durnesh Lough 000138	8.07 km S	Lagoons, Molinia Meadows	No Spr Chain for effect to this pNHA
St. John's Point 000191	11.26 km SW	Dry Grasslands, Molinia Meadows, Alkaline fens, coastal habitats, Marsh Fritillary, Marine Mammals	No Spr Chain for effect to this pNHA
Ballintra 000115	11.60 km SE	Dry Heath, Limestone Pavement	No Spr Chain for effect to this pNHA
Lough Eske And Ardnamona Wood 000163	11.70 km NE	Salmon and Freshwater Pearl Mussell, Old oak wood, killarney fern, Springs	No Spr Chain for effect to this pNHA
Meenaguse Scragh 001880	12.07 km N	Atlantic Wet Heath	No Spr Chain for effect to this pNHA
Carricknahorna Lough And Lough Gorman 002068	13.02 km S	Marl Lakes, Limestone Pavement, Peatland	No Spr Chain for effect to this pNHA

Designated Site	Distance	Feature of Interest	Impact Determination
Erne Estuary/Finner Dunes 000139	14.23 km S	Coastal habitat, Waterfowl	No Spr Chain for effect to this pNHA
West of Ardara/Maas Road 000197	14.70 km NW	Coastal Habitats, Oligotrophic waters, Salmon, Otter, Seal, Marsh Fritillary, Peatlands, Grasslands, Slender Naiad	No Spr Chain for effect to this pNHA
Owendoo and Cloghervaddy Bogs 002046	14.74 km NE	Peatlands	No Spr Chain for effect to this pNHA

No Natural Heritage Areas occur within 15km of the proposed development. There is no pathway for significant effect on any proposed Natural Heritage Area. The impacts of the existing development on European sites are examined in the accompanying remedial Appropriate Assessment Screening Report (rAAsr). The rAAsr found that due to the separation of the site from European sites, the nature and scale of the proposed development and the nature and scale of the pathways for effect, that there is no likelihood of significant negative effects in the absence of mitigation on any European site.

13.4 Utilities and Services

13.4.1 Water

There is no mains water supply to the site. There are no welfare facilities provided on site. Welafe and canteen facilities are provided at the applicants home approximately 130 m west of the site entrance. No crushing and washing of product occur on site. A small amount of water is recycled from the sump in the processing area for use in cooling the cutting saws. Water is occasionally used for dampening down surfaces in periods of exceptionally dry weather. Water for this use is sourced either from the sump or one of the settlement ponds on site. The subject of water for the site is covered in detail in Chapter 8, *Water*.

13.4.2 Wastewater

There are no toilet or canteen facilities on site and no wastewater is generated. Effluent from the processing area is captured in the sump and recycled. Effluent from the extraction areas is directed to the settlement ponds for settlement treatment prior to discharge off site to a receiving watercourse. There are proposals for the improvement of the effluent capture on site and for the installation of a hydrocarbon interceptor prior to discharge off site. Further details are provided in Chapter 8, *Water*.

13.4.3 Electricity

Currently there is no ESB connection or telecommunications connection to the site. All office work related to the quarry is carried out at the applicants dwelling some 130m west of the site entrance. A temporary site office was located within the quarry some time ago but has since been removed from site.

13.5 Impact Assessment

13.5.1 Residential Buildings

The main potential impacts on residences from the existing and proposed development would be associated with the landscape and potential noise because of day-to-day quarrying activities.

The proposed development will not result in a significant increase of traffic from the quarry. Noise, vibration and air emissions will be below the recommended guideline values at the nearest dwellings. The quarry lies within the 60-64 dB and 55-59 dB noise corridors associated with the national N56 transport route. Proposed management measures, in relation to quarrying activities, are detailed in various Chapters of this rEIAR. These measures will aid in reducing the impact of the quarrying activity. Regular environmental monitoring of noise, vibration and dust emissions will be carried out in order to ensure the development is compliant in relation to any threshold levels set.

13.5.2 Geological Resource

By its nature the existing quarry has resulted in the loss of the geological resource which cannot be replaced. However, the extracted material is being supplied to the local construction market which consists of both private and public sector developments thereby contributing to the local, regional and national economy.

13.5.3 Land Resource

The removal of bedrock material and the altering of the topography of approx. c.2.5 hectares within the quarry site is inevitable in causing the loss of some habitat. In the past, as a mitigation measure against the loss of habitat, envisaged. A restoration plan is outlined in Chapter 15, *Landscape & Restoration*, of this rEIAR which further highlights measures which will be taken to offset the impact on biodiversity. Loss of habitat within the site post mitigation has been assessed as imperceptible (see Chapters 6 and 15 of this rEIAR).

13.5.4 Public Utilities

It is unlikely the existing quarry has negatively impacted on the availability or quality of public utilities in the local area. The planned development is not likely to add to the demand for public utilities in the local area.

13.5.5 Groundwater and Water Supplies

Chapter 8, *Water*, assessed the impacts of surface and groundwater. The existing development and planned continuation were shown not have had any significant negative effect on the quality and quantity of the surface water and groundwater resource.

13.5.6 Scenic Routes

No focal points or views listed in the Donegal County Development Plan 2018-2024 are located in the vicinity of the quarry. Therefore, no impact is predicted.

13.6 Mitigation Measures

Mitigation Measures are detailed in the relevant Chapters of this rEIAR to ameliorate impacts on Material Assets – Site Services (see Sections 6-10 for all relevant mitigation measures).

13.7 Residual Impacts

No residual impacts are envisaged.

13.8 References

Central Statistics Office, www.cso.ie
Ordnance Survey of Ireland, www.osi.ie
The National Parks and Wildlife Service, www.npws.ie
Geological Survey of Ireland, www.gsi.ie
County Donegal Development Plan 2018-2024 www.donegalcoco.ie