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Introduction

- 11.1 This Chapter of the Environmental Impact Assessment Report (EIAR), prepared by SLR Consulting Ireland, addresses the potential effects of a proposed development at the existing Rossmore Quarry on material assets. The existing quarry includes rock extraction / processing, readymix concrete and asphalt production. A ground limestone processing plant has been granted planning permission but is not yet constructed.
- 11.2 It is proposed to extend the existing quarry eastwards into an area comprised predominantly of agricultural lands and with settlement ponds that are part of the water management system for the existing quarry within the southern part of it. A vehicular tunnel is proposed underneath the private local road from the existing quarry to the extension area.
- 11.3 The application site is located in the townland of Rossmore, Carrigtwohill, Co. Cork. It is situated c. 2km south of Carrigtwohill and 6km southwest of Middleton, Co. Cork. It is located approximately 2km south of N25 National Primary Road (E-30 European Route) which links Cork city to Rosslare Europort (refer to EIAR Figure 1-1).
- 11.4 Access to the lands is via an existing access to the public road to the north which connects to the N25 National Primary Road to the north. The L3619 local road runs to the north and links the R624 Regional Road to the west at Fota and the N25 National Primary Road at Middleton. There are private residences along the L3619, between the existing quarry boundary and the road. Beyond the southern boundary of the lands is an access right of way to the adjacent Kilsaran quarry property lands, and Rossmore Bay, part of the Cork Harbour channel.
- 11.5 The land interest and application areas are shown on Figure 1-2 and Figure 1-3 of this EIAR.
- 11.6 The proposed development being applied for under this current planning application is shown on EIAR Figure 2-2 and will consist of:
- extension of the existing quarry over an extraction area of c. 12.5 hectares to a level of minus 35mOD;
 - extraction and processing of limestone using the industry standard blasting and processing techniques in place at the existing quarry;
 - provision of overburden storage area;
 - provision of a vehicular tunnel underneath the local private road to link the extension area to the existing quarry;
 - operational landscaping including perimeter screening berms around the proposed extension area;
 - restoration of the quarry to natural habitat after-uses; and
 - all related ancillary site works within an overall application area of c. 22.3 hectares, and all for a period of 35 years and a further 2 years to complete final restoration of the site.

The proposed development, in conjunction with the existing quarry permitted under planning ref. 21/6983 (ACP Ref. ABP-313-903-22), will result in a combined extraction capacity of 500,000 tonnes per annum. The permitted extraction capacity of the existing quarry area will remain unchanged.

- 11.7 The existing quarry occupies ground with elevations ranging between c. -35 m OD and 20 m OD. The lower quarry floor currently extends to a depth of -35 m OD, with the current planning permission authorising extraction to a level of -50 m OD (ABP Ref. 313903-22; P. Ref. 21/6983), refer to EIAR Figure 2-1.
- 11.8 The recoverable reserve of rock from within the proposed extension to a level of -35m OD is estimated to be c. 6 million tonnes.
- 11.9 The processing of the extracted rock, into aggregate products, will consist of crushing and screening using mobile processing plant within the extension extraction area.
- 11.10 Further details on the proposed development (site infrastructure, operations, environmental management systems, and controls etc.) are provided in Chapter 2 of this EIAR.

Scope of Work / EIA Scoping

- 11.11 Article 3(1) of the amended EIAR Directive provides the revised headings by which an EIAR is to be written. According to the EPA Advice Notes on Current Practice (EPA 2003):
“Resources that are valued and that are intrinsic to specific places are called ‘material assets’. They may be of either human or natural origin and the value may arise for either economic or cultural reasons”.
- 11.12 Under Schedule 6 of the Planning and Development Regulations 2001 (as amended), material assets are taken to refer to architectural and archaeological heritage, and cultural heritage.
- 11.13 The more recently published EPA guidelines in relation to the preparation of EIAR¹ note the following in respect of material assets:
“Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes roads infrastructure.”
- 11.14 The specific headings in the guidelines in relation to material assets refer to built services, roads and traffic and waste management. Chapter 14 of this EIAR address transport and traffic aspects while Chapter 12 addresses architectural heritage, archaeological heritage and cultural heritage separately to this Chapter.
- 11.15 This material assets impact assessment comprises the consideration of existing resources pertinent to the proposed development and the application site that are not addressed elsewhere in this EIAR and the likely development impacts on those resources. On this basis, this Chapter addresses built services and waste management. Built services are understood to refer to electricity, telecommunications, gas, water supply infrastructure and sewerage.

Consultations / Consultees

- 11.16 Consultation has been also undertaken with utility service providers in the course of this assessment to identify the utility infrastructure on and around the application site.

¹ Environmental Protection Agency (2022). *Guidelines on the Information to be contained in Environmental Impact Assessment Reports.*

- 11.17 In addition, consultation has been undertaken directly with EIA specialist contributors such as water, noise and air in the preparation of the material assets assessment.

Contributors / Author(s)

- 11.18 This chapter of the EIAR was prepared by Lynn Hassett who is an EIA co-ordinator with a BSc in Applied Ecology (2000) and a MSc in Environmental Impact Assessment (2001). She has over 18 years of experience of EIA across the not-for-profit, public and private sectors in the UK and Ireland. She has worked on both the review of EIA on behalf of planning authorities assessing applications and in the production of them to support planning applications being lodged. She is a Practitioner member of the Institute of Environmental Management and Assessment, which she is a member of since 2001. She is also a Full Member of the Institution of Environmental Sciences, which she joined in 2023.
- 11.19 She has worked on numerous extractive industry and other sector planning applications and EIARs. She has experience in both the project management of EIA as well as preparation of generalist assessments such as Population and Human Health and Material Assets.

Limitations / Difficulties Encountered

- 11.20 No limitation or difficulties were encountered in the preparation of this Chapter of the EIAR.

Regulatory Background

Guidelines and Technical Standards

- 11.21 This chapter of the EIAR has been prepared on the basis of the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022).
- 11.22 There are no technical standards relevant to this Chapter of the EIAR.

Legislation

- 11.23 There is no specific legislation relevant to this Chapter of the EIAR. However, the information provided within this Chapter is informed by:
- Section 37D and 171A of Planning and Development Act, 2000 (as amended);
 - Article 94 and Schedule 6 of Planning and Development Regulations, 2001 (as amended); and
 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Planning Policy and Development Control

- 11.24 This Chapter of the EIAR is informed by the National Planning Framework (NPF) 2040² and the Cork County Development Plan 2022 - 2028 (CDP).

² Draft First Revision to the National Planning Framework (issued July 2024)

- 11.25 Within Section 8 of the Cork CDP, 'Economic Development', Section 8.17 'Mineral Extraction' highlights the importance of protecting important reserves and operations of working quarries from development that might prejudice their utilisation. In line with this, Cork County Council recognises the economic value and significance of the aggregate and mineral sector to the local, regional, and national economy in terms of employment generation and providing raw materials for the construction industry. It further highlights that there are 230 quarries registered under Section 261 of the Planning and Development Act 2000, as amended, operating within the County, primarily engaged in Sand and Gravel and stone quarrying. The following policy is provided with respect to same:

County Development Plan Objective EC 8-16 Safeguarding Mineral Reserves

"a) Protect and safeguard the county's natural mineral resources from inappropriate development, by seeking to prevent incompatible land uses that could be located elsewhere, from being located in the vicinity of the resource, since the extraction of minerals and aggregates is resource based.

b) Prepare a Minerals Strategy Plan to support a sustainable extractive industry during the lifetime of the plan. This strategy will be prepared taking account of environmental, nature, conservation, heritage, landscape and other planning considerations."

- 11.26 Also within Section 8 'Economic Development' is the County Development Plan Objective 'EC 8-2 Employment Strategy', which supports employment sectors such as minerals in rural areas because of the unique specific locational or operational requirements of the use.
- 11.27 Chapter 13 of the Plan sets out the strategic framework for the protection and future development of energy and telecommunications infrastructure for the County. It is expected that individual proposals are designed with minimising requirements for resources such as energy and water.

Significant Risks

- 11.28 The proposed development is a conventional quarry project using established industry methods and operated by a well-established, experienced industry company who own, manage and operate the existing quarry.
- 11.29 The nature and extent of the works involved do not present any risk of a major accident or disaster which would give rise to uncontrolled emissions of dangerous substances to air, land or water which could, in turn, give rise to significant adverse impacts on material assets in the surrounding local area.

Receiving Environment

Site Context

- 11.30 The application site is in a coastal location to the east of the existing Rossmore Quarry, on the opposite side of the L3612 local road. It is within easy reach of the N25 regional road which provides a strategic link through the connection between Cork and Rosslare Port.
- 11.31 The surrounding area is rural, with land uses predominantly comprising a mix of agricultural, waste management, extractive, and one-off rural houses and agricultural buildings are dotted along the adjacent road network.

Study Area

- 11.32 For the purposes of this assessment, the study area principally comprises the application site and its immediate surrounds to within a 1 km radius. The study area was selected to ensure that all built service infrastructure within the surrounding area of the application site was identified and to ensure that any associated structures or inter-reliance in the immediate surrounding area were considered if appropriate.

Baseline Study Methodology

- 11.33 The baseline study in respect of material assets comprised a desk-top review of online and published resources, information provided by the Applicant and information contained in the other Chapters of this EIAR. Ordnance Survey maps and aerial photography of the local area were also examined.

Sources of Information

- 11.34 All baseline information which was not contained within other chapters of this EIAR was obtained from the following resources:
- Myplan.ie (www.myplan.ie);
 - Historic Environment Viewer (www.webgis.archaeology.ie/historicenvironment);
 - Cork County Development Plan 2022-2028;
 - OSi Maps;
 - Aerial photography;
 - Open Streetmaps (www.openstreetmaps.org); and
 - Information on utility infrastructure supplied by utility providers as identified in this chapter.

Infrastructure

Roads

- 11.35 The N25 National Road, between Midleton and Cork City is the closest main road to Rossmore Quarry at Rossmore (approximately 1.5km due north at closest point). The R624 Regional Road between Carrigtwohill and Cobh is approximately 2km to the west of the site at its closest point. Between these roads, the landscape is intersected by a pattern of minor roads, such as the L3612 (Barryscourt Road), L7645 and the L3619, with the proposed development being accessed by one of these local roads, south of its junction with the L3619 and the L7645.
- 11.36 All external traffic for the existing quarry and proposed development will continue to use the existing quarry access via the private road that leads northwards forming a crossroads with the east-west L3619 local public road. The private road also serves the Rossmore Landfill and Civic Amenity Centre, which is operated by Cork County Council.
- 11.37 In 2019, the junction between the private access road and the L3619-0 road was realigned to the west of its previous position to form a right-left staggered crossroads, with cutting back and removal of some trees along the south side of the L3619-0 in the vicinity of the crossroads undertaken to provide improved visibility for traffic turning out of the private access road. These works were undertaken by the Applicant in compliance with the requirements of planning ref. PL04.QD0010.

- 11.38 In accordance with Condition 15 (b) attached to the existing planning permission ACP Ref. 313903-22 (Plan. Ref. 22/6983), all heavy goods vehicles (HGV's) leaving the quarry are required to turn left into the L-3619 driving westwards and continue onto the R624 regional road, refer to EIAR Figure 1-1. All HGV's coming to the quarry will continue to take the R624 and turn onto the L-3619 local road.
- 11.39 In 2025, the Applicant constructed an island at the northern extents of the access road leading to the existing quarry to direct all exiting HGVs to turn left onto the L-3619 road. The design of the island was approved by Cork County Council prior to installation. The Applicant is currently engaged with the Council (via PMCE Consultants) to review the previously agreed measures, and agree the implementation of additional measures, to ensure the continued enforcement of authorised haul routes.
- 11.40 All traffic will continue to enter the existing quarry via the site office and weighbridge and runs over a paved road surface.
- 11.41 Chapter 2 provides details of the access tunnel that will be provided underneath the private road linking the existing quarry to the proposed extension.

Water Supply

- 11.42 Mapping requested from Uisce Éireann (see **Plate 11-1**) indicates a mains water supply running along the private road that separates the existing quarry from the proposed extension.
- 11.43 Potable water is imported to the existing quarry through large dispenser bottles.
- 11.44 Process and ancillary water for the existing quarry needs is supplied from the dedicated quarry water management (settlement lagoon system) and an on-site borehole (refer to EIAR Chapter 7 - Water). Chapter 7 provides further details on surface water management arrangements and information on how treated water is discharged from the quarry under the existing discharge licence.
- 11.45 Effluent from toilet facilities is treated using the existing on-site treatment system, as described in Chapter 7.

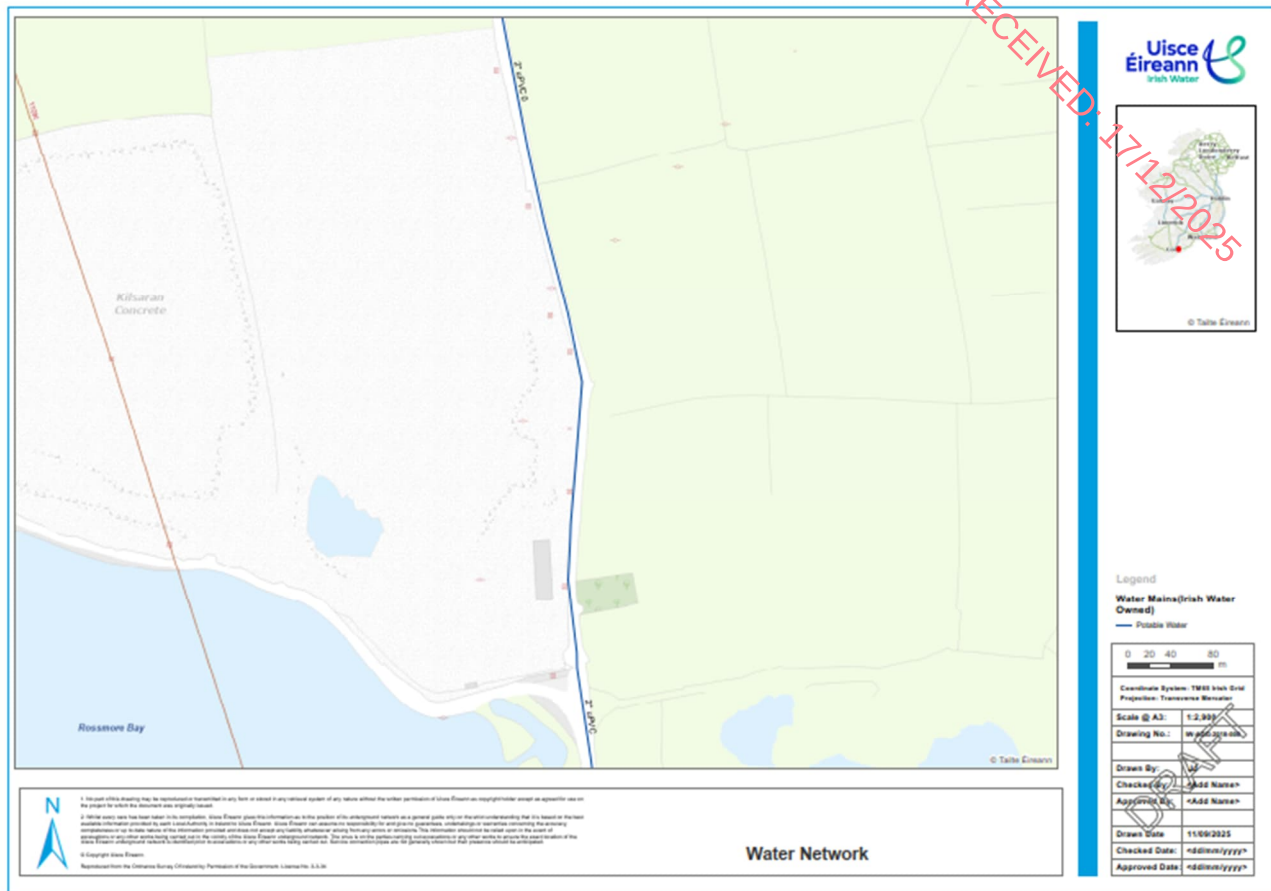
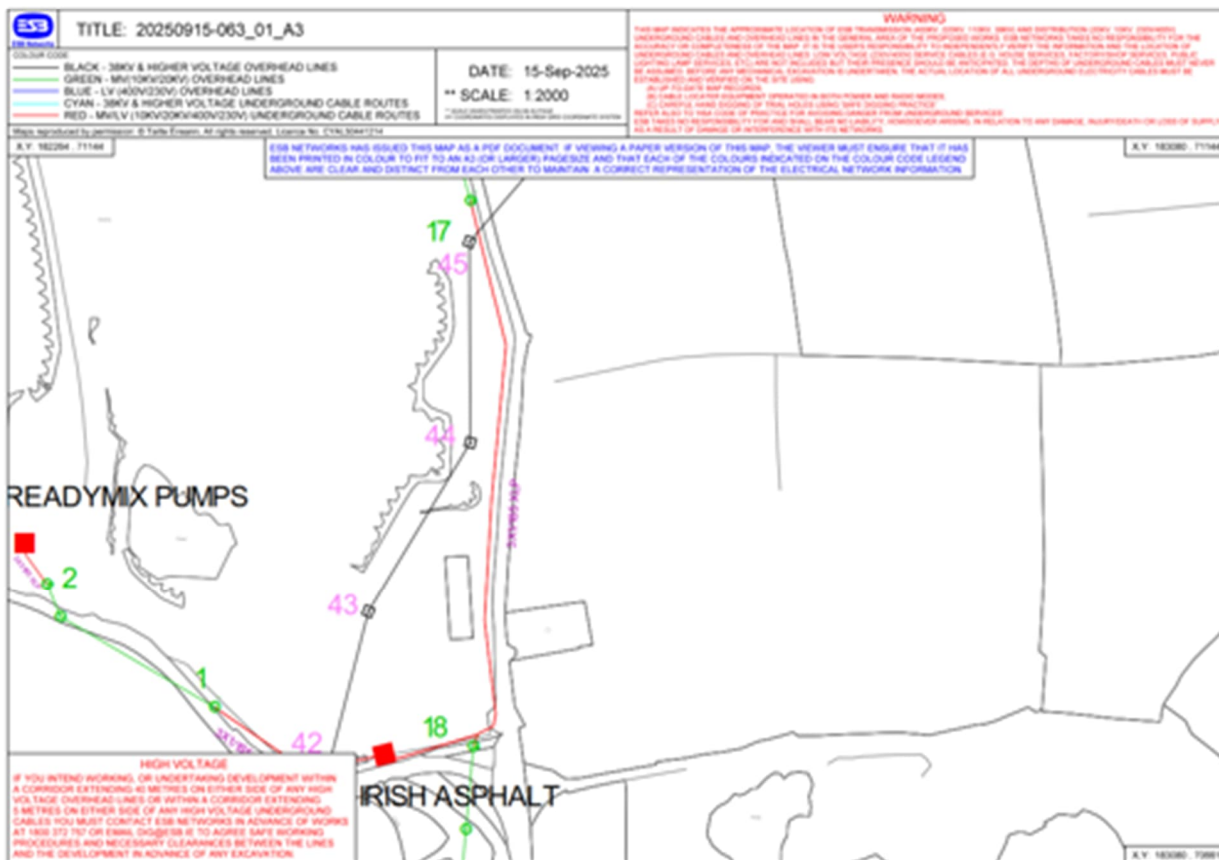


Plate 11-1 Mains Water Supply in Area

Utilities

- 11.46 Rossmore Quarry is served by mains electricity which feeds directly into the overall site. There is an electricity substation situated along the southern boundary of the existing quarry.
- 11.47 The existing quarry has an electrical substation, which is connected by an underground mv/lv cable to the 10kv/20kv overhead electricity cable network to the north and south. 10kv/20kv underground cable route to a 10kv/20kv overhead power line in the southwestern portion of the proposed extension area. The underground cable runs along the western side of the private road separating the existing quarry from the proposed extension area as shown on **Plate 11-2** below. In addition to this, there is an overhead 38kv high voltage line that enters the existing quarry from the southwest, crossing into the northern half of the proposed extension area in a northeasterly direction, across 4 poles and entering the Carrigtwohill 38kv substation outside of the application site on the northern side of the L3619. One of these poles will be relocated in due course, following engagement with ESB Networks.



Breedon Materials Ltd. (t/a Breedon Ireland)
Rossmore, Carrigtwohill, Co. Cork
EIAR – Extension of Existing Quarry

- 11.48 OpenEir Civil Engineering mapping indicates that there is telecommunications infrastructure running along the local road network, see **Plate 11-3** below.

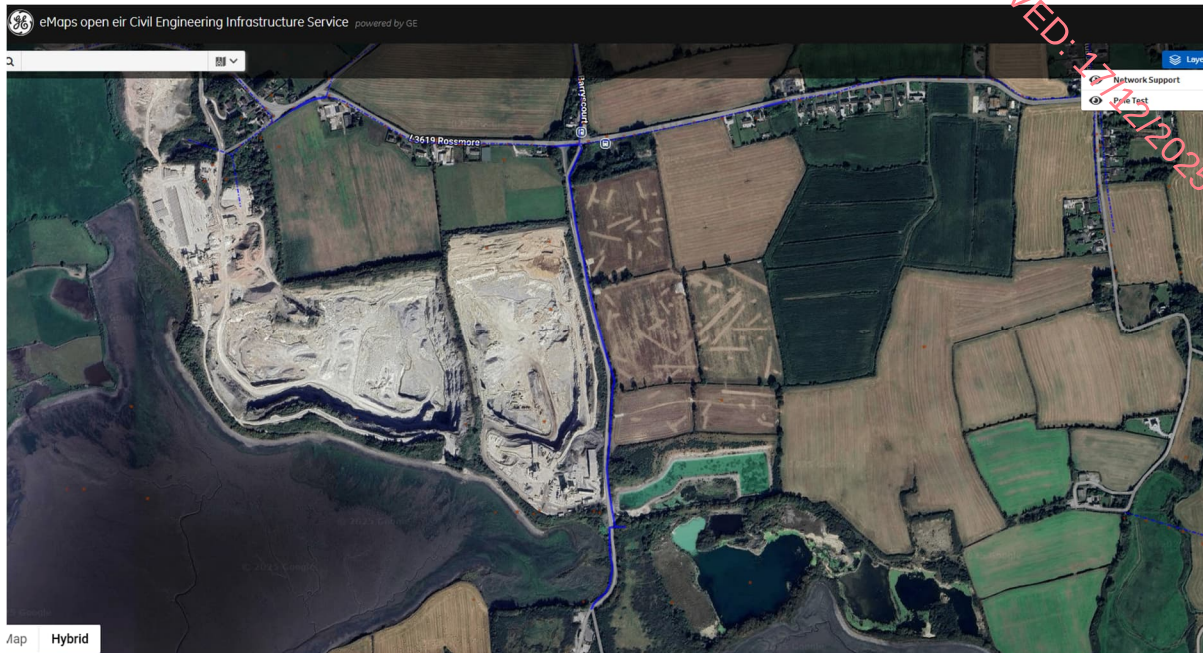


Plate 11-3 Eir Civil Engineering Infrastructure

- 11.49 According to Gas Networks Ireland (GNI) mapping, there is no gas infrastructure within the application site. There is a high-pressure gas transmission line in the wider area (as seen in **Plate 11-4** below). It is c. 1.3km east of the application site at its closest point.

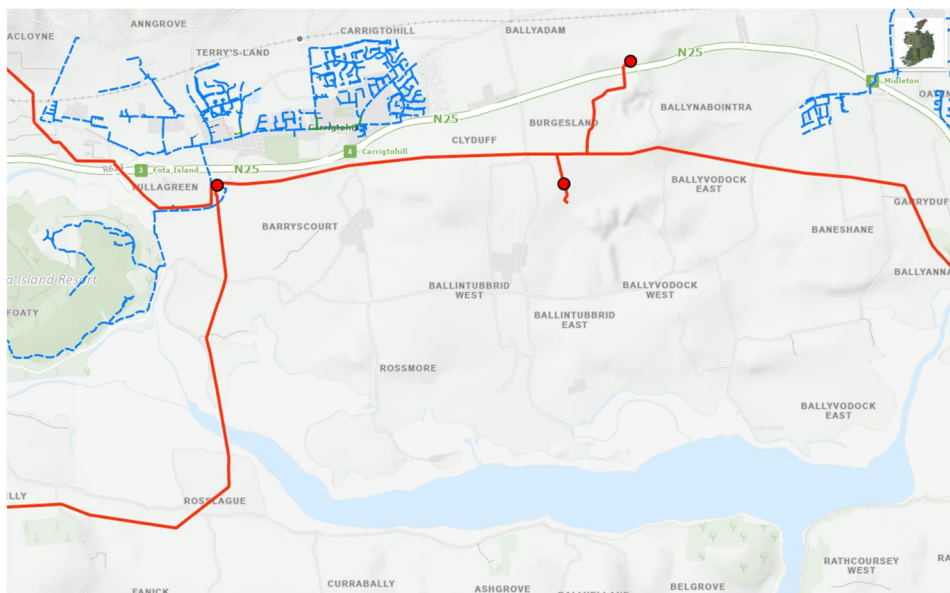


Plate 11-4 GNI Infrastructure near the Application Site

Settlements and Housing

- 11.50 Residential housing in the area immediately surrounding the application site principally comprises isolated, single rural dwellings along the local road network and within large agricultural landholdings. Most housing in the study area has been established for several (>5) years. The locations of properties close to the application site are indicated on the land use map provided in **Figure 4-1**, within 500m and 1km offsets from the application boundary. The nearest large settlement cluster is at the town of Midleton, located approximately 2km to the northeast of the application site.

Local Enterprise

- 11.51 There is a diverse mix of economic activity in the area surrounding the application site. As well as industrial nature businesses such as the adjoining quarry and Cork Civic Amenity Site, there is a number of small home or farm based rural enterprises operating out of local residences, as well as tourism related enterprises such as at the Fota complex, and a range of employment types associated with Little Island industrial area and Cork City in the wider area.
- 11.52 There is also an important tourism / nature / amenity resource in the local area associated with nature trails and coastal resources that are also important for fisheries.

Waste Management

- 11.53 General waste produced in the existing quarry is transported to local designated waste storage areas, where it is collected in bins and removed for recycling or disposal by a licensed waste contractor.
- 11.54 Waste oils are collected periodically by a licensed company. Any light bulbs, batteries, rubber tyres and scrap metal arising on the site are stored within local designated scrap storage areas prior to collection by a licensed collector.
- 11.55 The Environmental Management System (EMS) provides details of waste management procedures and details on the reuse/recycling/disposal route for waste that may arise.

Existing Land Use

- 11.56 The lands within the application site comprise predominantly agricultural lands, and settlement ponds used as part of the water management system for the existing quarry. **Plate 11-5** is an extract from the Corine Land Use (2018) mapping³, which shows the southern portion of the site already classified as a mineral extraction site, and the remainder classified as agricultural, arable, land.
- 11.57 The main land use in the surrounding area is classified as a mix of pastoral and arable agricultural land. Marine and coastal areas are dominant to the south.
- 11.58 As mineral extraction activities are tied to their location, i.e. their geological characteristics, there are large areas of mineral extraction also evident in the surrounds.
- 11.59 The CDP zoning maps show the application site, and a large area surrounding it (see **Plate 11-6**), as being of high value landscape. Chapter 13 addresses this in further detail.

³ <https://gis.epa.ie/EPAMaps/>

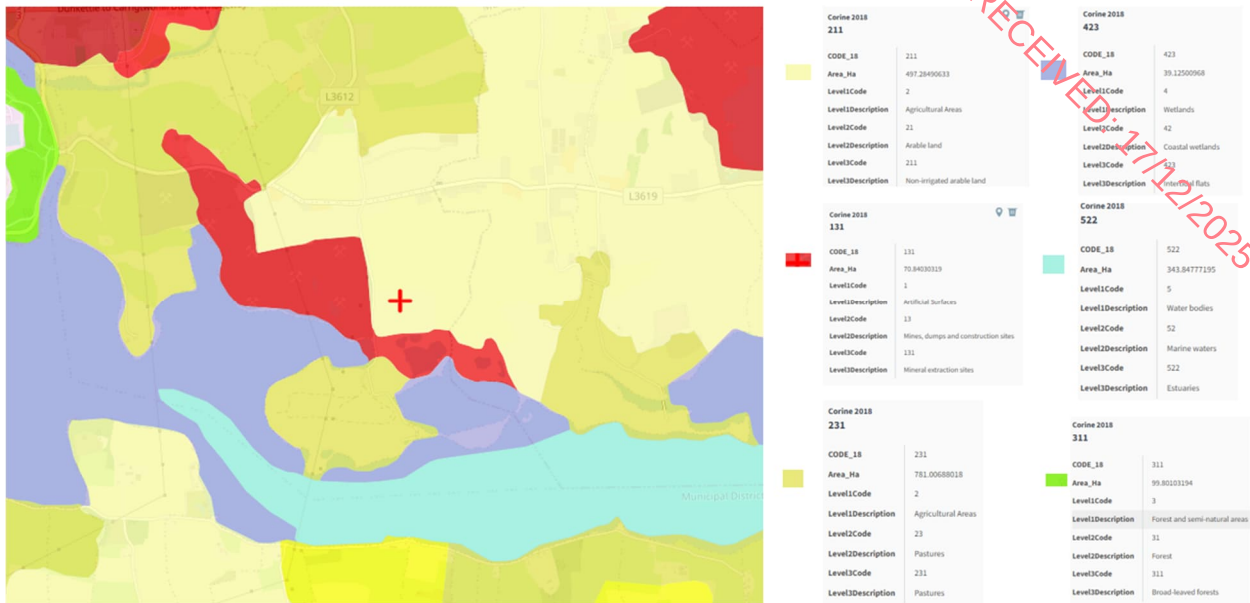


Plate 11-5 Corine Land Use Mapping

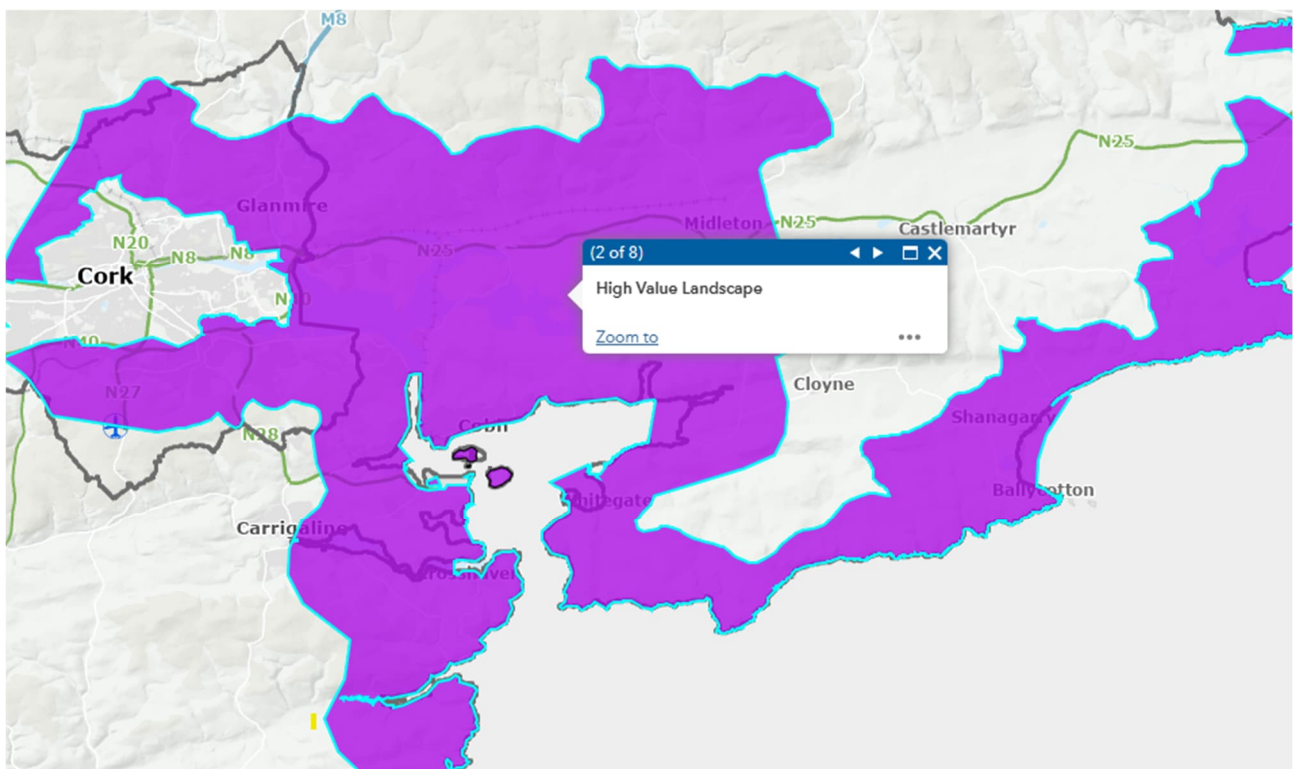


Plate 11-6 High Value Landscape Area

Property Receptors

- 11.60 There are approximately 30 residences within c. 0.5km of the application site as indicated on **Figure 4-1**. These residences are located along the local road to the north of the site, and to the north of the road.
- 11.61 There are no schools, churches, playing grounds or any other community infrastructure in the vicinity of the application site.

Impact Assessment

Evaluation Methodology

- 11.62 The evaluation of effects on built services and waste comprises a qualitative assessment based on an analysis of potential effects on the environment undertaken in other chapters of this EIAR. The assessment also takes into account a review of relevant literature and professional judgement in relation to impacts on built services and waste.

Construction and Operation Phases

- 11.63 Given that the proposed development is an extension of existing activities, and that quarrying operations are similar in nature to construction works it is considered appropriate to address both phases as one in this case. The construction of the access tunnel underneath the private road will also be similar in nature to existing quarrying activities. Ground disturbance has already been undertaken within the application site during archaeological trenching / testing works carried out under licence from the Development Application Unit and required to provide information to support the planning application (see EIAR Chapter 12 – Cultural Heritage).

Infrastructure

Construction and Operational Stage Impacts – Roads

- 11.64 The proposed development comprises an extension of the current operation at the existing Rossmore Quarry.
- 11.65 The quarry operations include extraction of rock and aggregate processing. Part of the aggregates currently extracted on-site are transferred to the on-site asphalt and readymix concrete plants, while the balance is transported off-site, both to external customers and to other Breedon locations for use in the manufacture of value-added products such as readymix concrete and asphalt.
- 11.66 The proposed development, in conjunction with the existing quarry permitted under planning ref. 21/6983 (ACP Ref. ABP-313-903-22), will result in a combined extraction capacity of 500,000 tonnes per annum. The permitted extraction capacity of the existing quarry area will remain unchanged.
- 11.67 The traffic assessment described in EIAR Chapter 14 has taken into account the traffic associated with the existing quarry & value added manufacturing facilities (including the ground limestone processing plant which has not been constructed to date) and the proposed quarry extension.
- 11.68 The traffic assessment concluded that the proposed development would have a negligible impact on the link capacity of the L3619 Local Road and the Quarry Access Road.

- 11.69 The impact of the proposed development, in relation to road safety and the existing road infrastructure, was also determined to be negligible. Visibility splays at the proposed development access on were also found to be acceptable.
- 11.70 The junction between the private access road and the L3619-0 road has recently benefitted from improvement works (see EIAR Chapter 1) and vegetation clearance to improve visibility for traffic turning out of the private access road. These works were undertaken by the Applicant in 2019 and 2025 respectively.
- 11.71 The proposed access tunnel underneath the private road from the existing quarry to the proposed development will minimise the impact on road infrastructure.

Post-Operational Stage Impacts – Roads

- 11.72 On completion of extraction and final restoration activities at the site, there will be a permanent reduction in HGV traffic movements over the local road network leading to and from the application site, with consequent reduction in HGV traffic levels and an improvement in road service levels.

Construction and Operational Stage – Water Resources

- 11.73 Precautions / mitigation measures will be implemented to ensure that any potential impact of site-based activities on local surface waters and groundwater underlying the application site (e.g. accidental oil or fuel spills) is minimised in order to safeguard and protect potential surface water and groundwater resources (refer to EIAR Chapter 7).
- 11.74 The proposed development will have no impact on third party water wells as any such wells are upgradient and outside the potential radius of influence (refer to EIAR Chapter 7).
- 11.75 Excavation /groundworks in the vicinity of the road, particularly in relation to the tunnel construction, will be undertaken in consultation with Uisce Éireann, to ensure the protection of their infrastructure in the area.
- 11.76 The existing quarry water management system, together with the existing on-site borehole supply for quarry related activities will continue. Drinking water will continue to be supplied by means of bottled water.
- 11.77 The existing on-site treatment system, as described in EIAR Chapter 7, will continue to treat effluent from the toilet facilities.

Post-Operational Stage Impacts – Water Resources

- 11.78 On completion of extraction and final restoration of the pit, there will be a permanent reduction in direct risks to surface water bodies and groundwater. There will be no long-term requirement for a water supply to the site.

Construction and Operational Stage Impacts- Utilities

- 11.79 Standard construction safety practices for working close to the existing overhead power and telecommunication lines at the site will be implemented for all site-based operations in order to safeguard the uninterrupted supply to local service users and to ensure the health and safety of employees, hauliers and visitors. This will be done in line with statutory obligations under health and safety legislation. ESB Networks and Eir will be consulted in relation to

works close to their infrastructure and any protection buffers will be observed if they are requested.

- 11.80 During construction of the access tunnel to the extension area the existing water main and Eir broadband cable will be temporarily diverted in accordance with the requirements of Uisce Eireann and Eir to ensure continuity of supply / service.
- 11.81 Rossmore Quarry is already served by mains electricity which feeds directly into the overall site. No further connection is required for the proposed development.
- 11.82 The gas infrastructure indicated in Plate 11-3 is well beyond the consultation distances specified in the GNI Code of Practice for working in the vicinity of their infrastructure (400m closest for all works excluding wind farm development).

Post-Operational Stage Impacts - Utilities

- 11.83 On completion of restoration activities, there will be no long-term risk presented to existing utilities / services around the application site, nor will there be a requirement for introduction of services to the site.

Waste

Construction and Operational Stage Impacts

- 11.84 There are existing waste management arrangements in place at the existing quarry in relation to general waste that will continue for the proposed extension area. These arrangements will remain in place for the duration of the operational stage. Any waste generated by the operational stage works will be handled and stored in an appropriate manner and will be removed off site by an appropriately licenced waste collector.
- 11.85 General office and food waste produced at the site offices will be minimised insofar as possible. Arrangements will be made for periodic collection of general / recyclable waste by authorised waste contractors and for submission of collected waste for recovery or disposal, as appropriate, at authorised waste facilities.
- 11.86 Waste oils and batteries will be stored on site in a designated (bunded) area on the concrete pad adjacent to the refuelling area, and domestic waste and scrap metal will be stored on site in designated storage areas adjacent to the site office and will be collected and recycled or disposed of at authorised off-site waste facilities by authorised waste contractors.
- 11.87 The proposed development will comply with all waste management responsibilities prescribed by conditions attached to any future grant of planning permission.
- 11.88 In light of the above, and the limited volume of wastes generated, it is considered that the generation of waste by on-site activities over the period of the extraction and final restoration works will not give rise to any significant short-to-long term effects on local waste collection / off-site waste management capacity.

Post-Operational Stage Impacts

- 11.89 On cessation of site activities, the proposed development will not have any effect on local waste generation or waste management needs over the longer-term.

Property Receptors

Construction and Operational Stage Impacts

- 11.90 The proposed development will give rise to a potential increase in the impact of ambient noise, ambient dust and traffic on residential properties and rural based enterprises in the

vicinity of the application site. As outlined in Chapters 8, 10 and 14 of this EIAR, a number of mitigation measures are proposed to control and minimise these effects at the properties closest to the application site.

- 11.91 Implementation of the planned measures will ensure that the residual effects of the proposed development on nearby properties during activities at the application site are acceptable and not significant.
- 11.92 As previously noted, precautions / mitigation measures will also be applied to ensure that any potential impact of site-based activities on surrounding surface water bodies and groundwater underlying the application site (e.g. accidental oil or fuel spills) and its associated abstraction / use will be minimised. These measures are outlined in detail in Chapter 7 of this EIAR.

Post-Operational Stage Impacts

- 11.93 The effects of the proposed development on nearby properties and rural based enterprises will cease on completion of restoration works.
- 11.94 The assessment of landscape and visual impacts presented in Chapter 13 of this EIAR concluded that the proposed development, while the landform will remain altered when the site is returned to an agricultural use, the restored site will integrate into the surrounding landscape, in particular as the hedgerows within the site mature.
- 11.95 On the basis of the foregoing, it is concluded that there would be no likely significant long-term effects on residential property or rural based enterprise as a result of the proposed development.

Future Land Uses

- 11.96 Implementation of the proposed restoration plan will reinstate the application site to a natural habitat.

Unplanned Events

- 11.97 According to the EPA guidelines, unplanned events, such as accidents, can include “*spill from traffic accidents, floods or landslides affecting the site, fire, collapse or equipment failure on the site*”. The 2014 EIA directive refers to “*major accidents, and/or natural disasters (such as flooding, sea level rise, or earthquakes)*”.
- 11.98 In this instance, the vulnerability of the proposed development to accidents, unplanned events or natural disasters is relatively limited owing to:
- the relatively straight-forward nature of the proposals and past experience of extraction works within the existing quarry;
 - the inert nature of the materials to be extracted and the relatively remote location of the proposed works;
 - the proven industry experience of the applicant, and the established use of similar plant, equipment and technologies to be used in executing the works; and
 - the well-established procedures which will be employed to manage and control the extraction and processing operations.
- 11.99 Unplanned events in relation to the proposed development could potentially relate to:
- instability arising from extraction activities at the application site;
 - spill from HGVs and other plant or vehicles moving within the site; and

- 11.100 The HSA Safe Quarry Guidelines to the Safety Health and Welfare at Work (Quarries) Regulations 2008 As Amended are implemented at the quarry and will limit the potential for unplanned events in the form of instability during extraction. The final restoration will provide for a stable landform restored to natural habitat.
- 11.101 Chapter 7 (Water) notes that accidental spillages or leaks of fuels or chemicals during site activities could happen without proper control and supervision. Appropriate mitigation measures and monitoring are and will continue to be implemented to ensure that there are no potential impacts on the water environment as a result of unplanned events at the site.
- 11.102 The traffic and transport assessment, carried out as part of the EIAR (Chapter 14), indicates that existing road network can accommodate the proposed development. It is considered that the risk of an accident resulting in a spillage from traffic associated with the development would be no greater in relation to this development than it is for any other form of development that relies on the transportation of goods and materials by HGVs. The potential for significant impacts on material assets as a result of a road spillage is likely to be very low and any such effects would be temporary.
- 11.103 Effects arising from unplanned events will not have any impact on material assets considered herein.

Cumulative / Synergistic Impacts

- 11.104 The environmental consideration that has the greatest potential for significant cumulative impact on population and human health, and, in particular on amenity, is traffic. This is assessed and discussed in the traffic impact assessment presented in Chapter 14 of this EIAR. The review of potential cumulative projects concluded that there were no planned projects in the vicinity with potential to cause 'in combination' effects and the traffic generation associated with the development is unlikely to give rise to significant impact upon the carrying capacity of the road network.

Transboundary Impacts

- 11.105 Given the location and site context of the application site, it is not anticipated that the impacts of the proposed development will have any significant transboundary effects on material assets.

Interaction with Other Impacts

- 11.106 It is not anticipated that the effects of the proposed development on material assets will interact significantly with other impacts.

'Do-nothing Scenario'

- 11.107 If planning permission is not approved for the proposed development, the application site would remain in its current state, with disturbed ground in the agricultural portion remaining from archaeological test trenching and the south of the site would continue to be used as the settlement lagoon and infiltration area for the existing quarry, until final restoration of that site.
- 11.108 The local supply of quality aggregates would not be augmented and would become increasingly restricted. The site would not be used to maximum advantage and the opportunity would be missed to obtain high quality and in-demand aggregates from a proven resource.

Mitigation Measures

Construction and Operational Stage Impacts

- 11.109 The mitigation of the construction and operational stage impacts of the proposed development in respect of water, air quality, noise, ecology, cultural heritage and traffic are detailed in the relevant Chapters of this EIAR. It is not considered that any additional mitigation measures, over and above those proposed for environmental emissions, are required in respect of infrastructure, utilities or sensitive receptors, other than those set out in other Chapters of this EIAR.
- 11.110 All waste generated at the site will be appropriately stored and removed by licenced contractors.

Post-Operational Stage Impacts

- 11.111 It is not considered that there are any long-term, post-operational impacts associated with the proposed development that require mitigation in respect of material assets, other than those identified elsewhere in other relevant Chapters of this EIAR.

Residual Impact Assessment

Construction and Operational Stage

- 11.112 As no significant effects are anticipated in relation to built assets or waste management and no specific mitigation measures are required in respect of material assets during the construction and operational stage, no residual impact is anticipated.

Post – Operational Stage

- 11.113 As no significant effects are anticipated in relation to built assets or waste management and no mitigation measures in respect of material assets are required during the post-operational stage, no residual impact is anticipated.

Monitoring

- 11.114 Monitoring, over and above that proposed for environmental emissions in Chapters 7 (Surface Water & Groundwater), 8 (Air Quality) and 10 (Noise & Vibration) of the EIAR, is not required or proposed in respect of material assets.