# Spink Quarry, Knockbaun, Abbeyleix, Co. Laois

## Spink Quarry

## Environmental Impact Assessment Report

## Section 11

## Landscape

## 2021



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## 11.1 INTRODUCTION

Although Laois is an inland county and lacks a coastline, the county nonetheless hosts a wide range of landscapes within the framework of a central lowland plain with the Slieve Bloom Mountains in the northwest, uplands (incl. Cullenagh, Fossy and Killeshin Mountains) in the southeast, substantial bogs concentrated in the Abbeyleix-Portlaoise area and several prominent esker systems. Inland waterways consisting of the River Barrow (forming the Laois–Kildare and Carlow border in the east), the River Nore (incl. tributaries such as the Clogh and Owenbeg Rivers) in the southwest, and the Grand Canal in the northeast (i.e., the Barrow Branch joining the River Barrow just south of Athy), provide important visual and recreational amenities within the landscape.

These landscapes intrinsically constitute invaluable elements of the natural resource base of the county, and need to be protected from inappropriate development. Scenic and high amenity areas not only have intrinsic value as places of beauty, but also because of their importance in terms of recreation, tourism and other uses. They are also a source of pride and inspiration for many residents and visitors alike. All aspects of the natural, built and cultural heritage come together in the landscapes we experience every day. Landscapes are an important part of people's lives, giving individuals a sense of identity and belonging, contributing to our well-being. Sensitive development and conservation of this resource is essential to the underpinning of the rural economy and quality of life.

This section of the EIAR addresses the landscape and visual impacts with respect to an accompanying planning application for the proposed development of a quarry at Spink. The section is essentially an overview of the landscape and visual amenity within the vicinity of the proposed development, coupled with an assessment of the potential impact, if any, of the proposed development on the existing environment in respect of these issues.

The application site is located within the Townland of Knockbaun c. 9.5 km east of Abbeyleix and c. 3.5 km northwest of Swan, County Laois. The site is located at a bow in the R430, the regional road connecting Mountrath and Abbeyleix in the west with Swan and Carlow in the east. The N77 and N78 National Secondary Roads can be accessed near Abbeyleix and Swan, respectively, and thus connects the site to the principal transport arteries in southeast County Laois. The applicant's landholding and the application site are identical (both covering an area of c. 19.6 ha), and are shown edged blue and red, respectively, on EIAR Figure 1.2.

The landscape consists of the visible characteristics of an area or region, including those elements that are physiographic (e.g., mountains and rivers), biological (e.g., vegetation and animals), transient (e.g., weather and climate), and human (e.g., built structures and land use). Landscapes variously combine human cultural influences superimposed on nature, creating places of unique character and identity, and by contributing to individual and social wellbeing and quality of life, is important in human fulfilment and in reinforcement of identity. Landscape also constitutes a resource favourable to economic activities, particularly tourism.

The European Landscape Convention 2000 states that landscape is “an area as perceived by people, whose visual features and character are the result of the action of natural and / or cultural (that is human) factors…landscapes evolve through time as a result of being acted upon by natural forces and human beings”.

EPA (2015) offers guidance on the description of the landscape in terms of context, character, significance and sensitivities, the analysis of the potential impacts on the landscape, and any proposed mitigation measures. This section also indicates the associated sections within the EIAR that consider these impacts and any proposed mitigation measures.

The assessment of the landscape and visual impacts of the proposed development has been prepared in accordance with the Advice Notes for preparing Environmental Impact Statements, Draft (EPA 2015). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, Draft (EPA 2017) were also consulted.

## 11.2 REGULATORY BACKGROUND

### 11.2.1 LEGISLATION

The European Landscape Convention (ELC), to which Ireland is a signatory, was adopted in 2000, and requires signatories to recognise landscapes in law and establish policies aimed at their protection, management and planning. The ELC aims to encourage public bodies to adopt policies and measures at national, regional and local level to protect, manage and plan landscapes. Under the convention, landscape means "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors", and can include high quality natural areas, rural lands, urban areas, peri-urban areas, degraded areas and everyday spaces.

There is no Irish legislation specifically governing protection of the landscape, although preparation of the landscape and visual impact assessments was done in conformance with the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018). The latter Regulations transpose the EIA Directive 2014/52/EU, amending previous Directive 2011/52/EU, on the assessment of the effects of certain public and private projects on the environment into Irish planning law.

Planning legislation and national guidelines, such as the Draft Guidelines on Landscape and Landscape Assessment (DoEHLG 2000) clearly indicate that conservation of the landscape in all its contexts must now be integrated into all aspects of planning policy.

### 11.2.2 PLANNING POLICY AND DEVELOPMENT CONTROL

There are two main documents that deal with long-term national and regional development strategies, and these underpin the direction of spatial development at the strategic level in the County. Firstly, at the national level, the National Spatial Strategy 2002 (DoELG 2002), and secondly at the regional level, the Midland Regional Planning Guidelines 2010-2022 (MRA 2010).

The 2002 National Spatial Strategy (NSS) was designed to provide a framework for balanced social, economic and physical development between the regions for the next 20 years (DoELG 2002). It therefore provided the strategic planning context for government policies and investment in housing, water services, transport, communications, energy, health and education infrastructure. The NSS was revoked in 2013, but its legacy persists in the Regional Planning Guidelines and County Development Plans.

In early, 2018, the government published "Project Ireland 2040", the new overarching public policy initiative, which consists of the National Planning Framework to 2040 and the National Development Plan 2018-2027 (DoHPLG 2018a; b), which will replace the revoked NSS and the Infrastructure and Capital Investment Plan 2016-2021 (DoPER 2016), respectively. This represents an alignment of the investment strategy with the strategic planning policy, to create a unified and coherent plan, which will drive the long-term economic, environmental and social progress across all parts of the country over the next ten years. This will ultimately feed into the planning processes when incorporated into the new Regional Spatial and Economic Strategies (RSES) that replaced the Regional Planning Guidelines in mid-2019.

Currently, the Regional Planning Guidelines (RPGs) extend the implementation of the NSS down to the regional and local levels, by linking national spatial policy with planning by local authorities. The RPGs are influenced by a wide range of international, national and regional level plans, programmes and legislation, and in turn form a framework for lower level plans and programmes (e.g., County Development Plans, Local Area Plans, etc.). The Midland Regional Planning Guidelines 2010-2022 (MRA 2010) were replaced by the new Eastern and Midland Regional Spatial & Economic Strategies (RSES) in June 2019 (EMRA 2019) but will not directly influence planning policy in Laois until incorporated into the next iteration of the CDP in 2022.

The Midland Regional Planning Guidelines (RPG) 2010-2022 (MRA 2010) recognise the European Landscape Convention (ELC), and also acknowledges the importance that local authorities within the Midland Region move towards consensus and adopt a shared methodology and consistency in landscape classification and assessment to ensure compatibility in decision-making (i.e., Landscape Policy EP1; MRA 2010). Thus, Landscape Character Assessment (LCA) offers the potential to establish a coherent strategy for integrating landscape, land use and transportation policies as well as economic, energy policies, etc.

Local authorities create their County Development Plans (CPDs) based on these regional strategies and guidelines. Thus, the plans must be consistent with longer term planning and sustainable development objectives, including those set out in the National Spatial Strategy, Regional Planning Guidelines and/or Regional Spatial & Economic Strategies. A County Development Plan sets out a strategic framework for the proper planning and sustainable development of the administrative area of the local authority, over a six year period.

A primary role in planning is to assist in the achievement of sustainable development, in part, by promoting an approach to landscape planning and management, which links objectives and recommendations for landscape character to existing planning policies. The capacity of each landscape character type to absorb new development will largely depend on the sensitivity of the landscape type. Developments which are likely to create a significant environmental and particularly visual impact will best be absorbed in areas where the landscape is robust, i.e. has the capacity to absorb development without significantly changing its character. All developments should be assessed on a site by site basis to avoid, minimise or mitigate any potential environmental or visual impact.

The importance of landscape and visual amenity and the role of planning in its protection are recognised in the Planning and Development Act 2000 (as amended). This requires that development plans include objectives for the preservation of landscape, views and prospects and the amenities of places and features of natural beauty. It also provides for the designation of Landscape Conservation Areas (LCA), Areas of Special Amenity (ASA) and the assessment of landscape character.

Laois County Council undertook a review of landscape provisions in the County Development Plan (CDP) 2011-2017 (Laois County Council 2011) in order to provide a more up to date strategy that classifies the landscape of the county and appraises landscape sensitivity. It was again published in 2017, with minor revisions, as Appendix 6 of the County Development Plan 2017-2023 (Laois County Council 2017). The relevant policies and objectives with

respect to landscape in the RSES, RPGs and Laois CDP are given in the Appendix 1, Section 1.2.2 Regional Context.

### 11.2.3 GUIDANCE

This chapter of the EIAR has been prepared with regard to the following guidance:

Countryside Agency and Scottish Natural Heritage (2002). *Landscape Character Assessment Guidance for England and Scotland.* Countryside Agency/Scottish Natural Heritage, Cheltenham, Gloucestershire, UK.

DoAHG (2011). Architectural Heritage Protection: Guidelines for Planning Authorities. Department of Arts Heritage and the Gaeltacht ( DoAHG), Dublin, Ireland.

DoEHLG (2000). Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities. Department of Environment, Heritage and Local Government (DoEHLG), Dublin, Ireland.

DoHPLG (2018c). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. Department of Housing, Planning and Local Government (DoHPLG), Dublin, Ireland.

EPA (2017). Guidelines on the Information to be contained in an Environmental Impact Assessment Report, Draft, Environmental Protection Agency (EPA), Johnstown Castle, Wexford, Ireland.

Irish Landscape Institute (2002). Guidelines on Landscape and Visual Assessment, 2nd ed. Irish Landscape Institute, Dublin, Ireland.

Landscape Institute with the Institute of Environmental Management & Assessment (2005). *Guidelines for Landscape and Visual Impact Assessment - 2nd ed.* Spon Press , London, UK.

Landscape Institute (2019). *Visual Representation of Development Proposals*. Technical Guidance Note 06/19. London, UK.

## 11.3 METHODOLOGY

The landscape and visual baseline study comprised a desktop study with follow-up field survey in the vicinity of the site. Although closely linked, landscape and visual impacts are assessed separately.

Landscape Impact Assessment (LIA) is concerned with changes in the physical landscape brought about by the proposed development, which may alter its character and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of the landscape, which combine to form the overall landscape character. By assessing the quality of the elements in the landscape and identifying the key sensitivities, it is possible to assess the ability of the landscape to absorb the type and scale of change associated with the proposed development, without causing unacceptable adverse changes to its character.

Visual Impact Assessment (VIA) is concerned with changes in the composition of views produced by changes to the landscape, how these are perceived and the effects on visual amenity. Visual impacts are measured on the basis of: (1) visual obstruction due to partial or intermittent blocking of a view; or (2) visual intrusion due to interruption of a view without blocking.

Analysis of the visual baseline information was used to identify the extent and nature of the existing views of the site from the principal representative viewpoints, and the nature and characteristics of the visual amenity of the potentially sensitive visual receptors.

In the EIAR assessment, consideration is given to both the importance of an attribute and the magnitude of the potential environmental impacts as a result of the proposed development. The impact ratings are in accordance with impact assessment criteria provided in guidance from the EPA (EPA 2017) (See also Appendix 3 General Guidance on Baseline Environment & Impacts).

### 11.3.1 CONSULTATIONS

No consultations were undertaken specifically with regard to this Chapter of the EIAR. Consultations were held with professional staff from the Laois County Council as part of the scoping process. A meeting between the project team and Laois County Council took place by way of virtual video conference call on the 11th February 2021.

In accordance with best practice guidelines, the process also involved non-statutory consultation. The list of consultees included the Dept. of Culture, Heritage & the Gaeltacht, HSE, GSI, Inland Fisheries, NPWS, and An Táisce (Refer EIAR Section 1.5 Scoping & Consultation). Although An Táisce did acknowledge receipt of the preconsultation document, only the GSI had responded with an opinion by the time of writing (See Appendix 4).

### 11.3.2 DESK STUDY

The desk study was used to determine the nature of the visual amenity of the area along with the approximate visibility of the development, which is determined through topographic analysis of map data. Potential receptors of visual effects, including residents and visitors through the area were also identified.

Ordnance Survey Ireland (OSi) Discovery Series 1:50,000 and OSi 1:5,000 raster mapping and aerial photography were examined (Refer to Figures 1.1 to 1.2). A topographical survey of the existing site was also carried out and modeled using digital terrain modeling software (Refer to Figure 1.3) through which cross sections were produced (Refer to Figure 3.3). LSS Digital Terrain Modelling software has been used to undertake ZTV (Zones of Theoretical Visibility analysis).

ZTV analysis is a useful desk study that may help to clarify the potential effect of developments in a landscape but it is not an end in itself. In order to get a better understanding of actual visibility, the results of the ZTV must be tested on the ground. As such an extensive field study of the area was also undertaken to identify any significant views that could be observed and to confirm the findings of the ZTV analysis.

For the purpose of this assessment Figure 11.1 and Figure 11.2 highlight the study area delineated as the likely zone of visual influence (based on Vertical & Horizontal ZTV analysis).

Visual impacts are best assessed from specific viewpoints. Principal representative viewpoints are mapped within the study area and these views are illustrated by photographs with annotations to describe any important characteristics, and the changes that have arisen as a result of the development (Refer to Plate 11.1 to Plate 11.9)

As part of the assessment an examination of the Regional Planning Guidelines for the Midland Region 2010-2022 (MRA 2010), the Laois County Development Plan (CDP) 2017-2023, which includes a Landscape Character Assessment (Appendix 6), and supporting documentation, was undertaken.

#### 11.3.2.1 Sources of Information

The assessment was carried out in general accordance with the above guidance documents. The main sources of information are listed in Section 0 below References, while abundant data was sourced online from observations made during virtual tours of the site and surrounding area using Google Maps and Google Earth Pro.

### 11.3.3 METHODOLOGY FOR ASSESSMENT OF LANDSCAPE ASPECTS

Landscape effects consist of the changes in the landscape, its character and quality that might result from development. The effect that these changes have on the landscape reflects the sensitivity of that landscape to change and the magnitude of that change.

The assessment methodology was conducted in accordance with Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, Draft (EPA 2017). During the assessment, consideration was given to both the importance of an attribute and the magnitude of the potential environmental impacts of the proposed activities on that cited attribute. These impact ratings are in accordance with impact assessment criteria provided in guidance from the EPA (EPA 2017) (See also Appendix 3 General Guidance on Baseline Environment & Impacts).

For the purpose of assessment, a matrix has been developed (Refer to Table 11.2 below) to define the significance of the landscape impacts. In completing the matrix, the landscape resource is considered in terms of magnitude of change in landscape characteristics and sensitivity of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values. The significance of impact is the relationship between magnitude and sensitivity.

The sensitivity of the area was devised by consideration of designations such as Special Protection Areas, Natural Heritage Areas, by reference to Ordnance Survey 1:50,000 discovery sheet mapping, aerial photography and any distinctive features of interest within the study area.

### 11.3.4 METHODOLOGY FOR ASSESSMENT OF VISUAL ASPECTS

Visual impact is the result of a change in view from receptors such as residences, prospects, public pathways and roads with views of the site. The magnitude of impact is assessed according to the scale of the effect, which will depend largely upon the size and type of the development and the distance of the receptor from the site.

Residential properties are considered the most sensitive receptors to changes in view whereas road users are the least sensitive as their experience is transient. The significance of visual impact depends upon the sensitivity of the receptor and the magnitude and duration of the effect.

The visual study consisted of a number of steps:

1. As part of the assessment an examination of the Regional Planning Guidelines for the Midland Region 2010-2022 (MRA 2010), the Laois County Development Plan (CDP) 2017-2023 (Laois County Council 2017), which includes a Landscape Character Assessment, and supporting documentation, was undertaken;
2. Ordnance Survey Ireland (OSi) Discovery Series 1:50,000 and OSi 1:5,000 raster mapping and aerial photography were examined (Refer to Figures 1.1 to 1.3);
3. A UAV survey of the site was conducted by JSPE on 17th February 2021. Multiple aerial photographs taken with the on-board 16 mp camera are digitally stitched together, from which very accurate maps are created using the principle of photogrammetry. The site and immediate environs were surveyed with high horizontal and vertical spatial resolution (i.e., 3cm per pixel), and produced a topographic survey with accuracy of up to 10cm. The topographic survey data were modeled using digital terrain modeling software (Refer to Figure 1.3) to produce a DTM, through which cross sections were produced (Refer to Figure 3.3);
4. LSS Digital Terrain Modelling software has been used to undertake Zones of Theoretical Visibility analysis (ZTV). ZTV analysis tools provide true tests of likely impact because the results reflect the effect that distance has on the apparent size of the object (a large object up-close has more visual impact than the same sized object further away. The visual impact analyses 'bald earth' terrain datasets which do not take into consideration the existence of natural and man-made features which may form a barrier to the 'line of sight'. As such, these analyses are going to produce a **'worst case'** with no account being taken of the influence of buildings and trees on the visibility;
5. The following ZTV analysis tools have been used.

   **Vertical ZTV (Visibility Surface(s))**

   The visual impact is linked to the vertical angle (VA) subtended at the viewpoint (eyepoint) by the top and bottom extremities of the object being viewed. This in effect gives a measure of how much of a given field of view is occupied by the object when viewed from different receptor locations and automatically takes account of the effect distance would have. Something close is far more intrusive than something hundreds of metres away (Refer to Figure 11.1).

   **Horizontal ZTV**

   'Horizontal ZTV' measures how much of a receptor's horizontal field of view is taken up by an object (i.e., development). What is produced is a model where the elevation of every grid point represents the chosen Horizontal ZTV in degrees. It is then possible to contour this or display coloured bands in order to highlight potentially problematic areas of high 'impact' (Refer to Figure 11.2);
6. ZTV analysis is a useful **desk study** that may help to clarify the potential effect of developments in a landscape but it is not an end in itself. In order to get a better understanding of actual visibility, the results of the Zone of Visual Influence (ZVI) must be tested on the ground. As such an extensive field study of the area was also undertaken

to identify any significant views that could be observed and to confirm the findings of the ZTV analysis;

7. For the purpose of this assessment, Figure 11.1 and Figure 11.2 highlight the study area delineated as the likely zone of visual influence (based on Vertical & Horizontal ZTV analysis); and
8. Visual impacts are best assessed from specific viewpoints. Principal viewpoints were mapped, and these views illustrated by photographs with annotations to describe any important characteristics, and the changes that have arisen as a result of the development (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to 11.9).

For the purpose of assessment, a matrix has been developed (Refer to Table 11.3 below) to define the significance of the visual impact with respect to the principal viewpoints identified.

### 11.3.5 FIELD SURVEY

Site visits were undertaken on 17th February 2021 and 1st June 2021. The purpose of the site visits was to enable familiarisation with the site, establish the general landscape character of the area and identify principal representative viewpoints including residences, prospects, public pathways and roads with views of the site. The actual extent of visibility was also checked in the field due to the localised screening effects of buildings, walls, fences, trees, hedgerows and banks. Potential seasonal screening effects were also identified where necessary and recorded.

The visual survey also includes and is supported by a photographic record from the principal and other relevant viewpoints. The photographs were taken at eye level (i.e., 1.6 metres above ground level) at the point of interest towards the development area using a digital camera. A panoramic image was produced by the careful 'stitching' together of single-frame images for each identified view.

The analysis of the visual baseline information identifies the extent and nature of the existing views of the site from the principal representative viewpoints, and the nature and characteristics of the visual amenity of the potentially sensitive visual receptors.

Principal viewpoints were mapped, and these views illustrated by photographs with annotations to describe any important characteristics, and the changes that have arisen as a result of the development (Refer to Plate 11.1 to Plate 11.9). The locations of the Principal viewpoints are shown on Figures 11.1 and 11.2.

## 11.4 BASELINE DESCRIPTION OF RECEIVING ENVIRONMENT

### 11.4.1 LANDSCAPE BASELINE CONDITIONS

#### 11.4.1.1 Site Area Description

The application site of Spink Quarry is located within the Townland of Knockbaun, c. 3 km northwest of Swan, c. 7 km south of Timahoe, east of Abbeyleix, c. 10 km north of Castlecomer, c. 13.5 km southwest of Stradbally, c. 16 km south of Portlaoise, and c. 19.5 km northwest of Carlow Town. The application site includes the entire landholding and covers an area of c. 19.6 ha. The quarry is located on the west side of regional road R430, which connects the towns of Mountrath and Abbeyleix in the west with the village of Swan and Carlow the southeast. The site is situated in a wide bow in the R430 as it swings around the hill into which the quarry has been excavated.

The site is located in a rural area and is bordered by the R430 regional road along the entire northern boundary, and by agricultural lands and afforestation along the remaining boundaries. The townland of Knockbaun occurs in an area classified as a Structurally Weak Area, which are rural areas that generally exhibit characteristics such as persistent and significant population decline as well as a weaker economic structure based on indices of income, employment and economic growth. These rural areas are more distant from the major urban areas and the associated pressure from urban generated housing. The population density of the Dysartgallen ED is 12.3 persons per km$^2$, which is extremely low compared to the average of 133 persons per km$^2$ in Leinster.

The total application area and landholding, including the site infrastructure, covers c. 19.6 ha of land (Refer Figures 1.2 & 1.3). The landholding occurs in a roughly rectangular shape, with the current quarry comprising the northwest and central areas of the landholding. The site is located on lands immediately west of, and with direct access onto, the R430, which connects with the N77 and R425 at Abbeyleix c. 9.5 km to the west and to the R426 at Swan c. 2.5 km in the east, as well as to the N78 c. 4.5 km east of Swan. Thus, the site has the benefit of being strategically located with links to the most critical transport arteries in southeast Laois. The site location is highlighted on Figure 1.1 at a scale of 1: 50,000.

**Topography**

County Laois consists of a central plain containing most of the productive agricultural land, surrounded by a number of upland areas, including the Slieve Bloom Mountains in the northwest, Killeshin Plateau in the southeast and Cullahill Mountain in the southwest. Substantial cutaway peatlands are situated between Portlaoise, Mountrath and Abbeyleix.

The topography of the region is that of rolling hilly landscape with the site situated on the northwestem margin of the Castlecomer Plateau, where elevations typically vary from 180 to 270 m Above Ordnance Datum (AOD). The site occurs at a maximum natural elevation of 261 m AOD along the southwestern boundary and a minimum natural elevation of 215 m AOD along the R430 Regional Road (northeastern boundary). The general topographical trend of the landholding is the lower land to the southeast. The surrounding lands are largely agricultural with varying degrees of intensity, but with afforestation abutting the site to the southwest.

Topographically, the lands occur within the watershed of the Nore River Basin, which flows south to drain into the River Barrow c. 2 km north of New Ross. Hydraulically, however, there is a divide through the centre of the site with the subcatchments of the River Clogh to the east and the River Owenbeg to the west. The former rises on-site close to the main entrance and flows to the southeast and subparallel to the R430 as a drainage ditch/stream, draining into the Clogh River, Dinin River and ultimately the Nore River just north of Kilkenny City. Two tributaries of the Owenbeg River, the Knockbaun and Garrintaggart, rise south and north, respectively, of the quarry, and flow to the northwest to drain into the mainstream of the River Owenbeg c. 500 m from the site. The Owenbeg River drains into the Nore River north of Ballyragget.

The site at Spink is located at approximately 215-255 m AOD in a predominantly rural area of southeast County Laois. The sandstone/shale deposits quarried at Spink occurs as a prominent hill or ridge with a NW-SE orientation. The site lies within rolling uplands of the northwestern flank of the Castlecomer Plateau—a prominent outlier (c. 20 km x 30 km) of Pennsylvanian (i.e., Upper Carboniferous) siliciclastic sediments surrounded by lowlands composed of Mississippian (i.e., Lower Carboniferous) limestones.

The topography in the area of the site is hilly, with the general landform descending to the northwest towards the central plain of Laois, comprising the Nore and Barrow Catchments, which occupy almost the entire county. This wider regional landscape is a relatively uninterrupted, flat to undulating broad lowland plain, with the nearest higher ground c. 13.5 km north at Hewson Hill, just east of Portlaoise. The Slieve Blooms lie c. 30 km to the northwest in an otherwise vast tract of flat lowland plain that covers much of counties Laois, Offaly, Kildare, Westmeath, and Meath. Thus, the adjoining area to the west comprises relatively flat low-lying land below the elevation of the site. In contrast, the landscape to the east is dominated by the Castlecomer Plateau and the Wicklow Mountains of the Leinster Granite Massif. The Wicklow Mountains are the largest area of continuous upland in Ireland, covering an area of over 500 $km^2$ above 300 metres and with a general NE-SW orientation.

The existing site permitted under P.A. Ref. 10/383 comprises a moderate-sized (i.e., c. 16.8 ha), hardrock quarry, which has been extensively worked with some remaining infrastructure and stockpiles on the quarry floor.

The infrastructure remaining includes entranceway, internal roads, settlement ponds, wheel wash and weighbridge (Refer Figure 1.3). The asphalt plant has been removed and there are no plans for its reinstatement. The quarry area is largely dominated by bare, exposed ground with stockpiles of aggregate and areas of grassland and scrub that remain undeveloped at the edges and to the southeast, as well as some site infrastructure. The northern and central sections of the site have been largely stripped of overburden and the rock has been excavated by blasting.

The lands are bounded to the northeast by the R430, while it is bounded by farmland and afforestation along the other boundaries. Because the quarry has been developed by excavating into the northeastern flank of a hill, the latter screens all views of the workings in an arc from the northwest to west to south. Presently, there are only intermittent views of the workings along the R430 east of the entranceway with most views of the current quarry workings screened by existing perimeter berms and screen planting along the roadside boundary. There are also

middle-distance intermittent views from rural road L77922 and rural road L7792. These limited, intermittent views generally amount to views of the upper quarry face, against the coniferous forest forming the southern site boundary.

Overburden stripped to access the underlying resource has been used to construct peripheral screening berms and for restoration of completed sections of the excavation. An earthen berm with screening from mature planting of deciduous trees fringes the c. 700 m northeastern boundary of the quarry site with the R430, while the other boundaries are largely maintained with stock fencing and hedgerows.

There are a number of residences within 1 km of the application site boundary, with 6 residences within 250 m, 9 residences within 500 m, and 36 residences within 1 km. The closest residential property is situated c. 175 m west of the northernmost corner of the application site and is one of a cluster of three residences at Larkin's Cross, where the R430 intersects rural roads L7792 and L77921. Two further residences are situated nearby along rural road L77921, while a sixth residence is situated on the L77922 c. 240 m directly across from the site entrance. Because of the intervening hill into which the quarry was driven, the residence situated c. 240 m opposite the site entranceway is the only residence within 250 m that has views of the quarry workings (i.e., No. 4 in Figure 4.1).

### Land Use

Spink is located in southeast Laois, c. 3 km northwest of Swan, c. 9.5 km east of Abbeyleix, and c. 10.25 km north of Castlecomer. The landholding covers an area of c. 19.6 ha and occurs in rolling terrain at 215–261 m AOD. The lands occur on the northwestern flank of the Castlecomer Plateau. The Knockbaun area is located within Landscape Character Type 1 (LCT1) Hills and Uplands, the remote character and existing low-density development of which the Council seeks to respect. The latter suggests that the LCT has a limited ability to absorb development.

The 2018 Corine (CORINE: Co-ORdinated INformation on the Environment) map (Refer to Figure 11.6) shows that the predominant land use within the application site was given as pasture, although by definition it is mineral extraction related to the quarrying of sandstone/siltstone and associated activities. Prior to the commencement of quarrying, the lands had been kept in agriculture use, with a small quarry used intermittently. Ultimately, the site will be reclaimed in accordance with the approved quarry restoration scheme, and most probably undergo a change of land use to wildlife amenity.

Land-use in the wider area consists of a patchwork of agricultural fields, which are predominantly held in pasture, but with significant areas designated as: (a) coniferous forest; (b) land principally occupied by agriculture with significant areas of natural vegetation; and (3) transitional woodland shrub. There are relatively high levels of forest cover in the area, mostly due to mono-type afforestation comprising scattered, rectilinear patches of coniferous forest. There is also forest cover associated with river corridors and common mature, overgrown hedgerows, while there is a conspicuous absence of the planned landscapes or parkland of demesnes in the area. The dominant land use in the wider area of the quarry is largely agricultural land principally held in pasture, and is largely devoid of any history of quarrying, except for the brickworks at Swan and several pits near Ballinakill.

Field dimensions vary from small to medium, while hedgerows vary from over-grown to less commonly well-managed. The predominance of smaller field sizes and mature hedgerows tends to create an a less open rural landscape, with some enclosed road corridors with restricted views. The area is generally characterised by rolling topography, poorer drainage, vigorous hedges and many hedgerow trees. The land is mostly used for stock rearing with minor mixed tillage, with blocks of coniferous forestry and some deciduous and successional woodland associated with river corridors. The landscape sensitivity of LCT1 is not explicitly stated, but probably corresponds to medium, and can thus accommodate development pressure but with limitations in the scale and magnitude.

A tributary of the River Clogh rises in the vicinity of the site entrance, traverses the southeastern section of the site and landholding, and flows as a drainage ditch a generally southeasterly direction subparallel to the R430. The drainage ditch drains into the mainstream of the River Clogh near Swan, which ultimately drains sequentially into the Dinin and Nore Rivers. Two tributaries of the Owenbeg River, the Knockbaun and Garrintaggart, rise south and north, respectively, of the quarry and flow to the northwest to drain into the mainstream of the River Owenbeg c. 500 m from the site.

Quarry workings have been a feature of this site since before the 1970s. The proposed development will continue to use/upgrade the established quarry infrastructure located in the site, including site entrance, internal roads, wheel wash, weighbridge, aggregate storage bays, refueling hard stand, water settlement pond system, and other ancillaries (Refer to Figure 1.3). The development will include provision of new site infrastructure, including site office/canteen, concrete batching plant and truck washdown facility, hydrocarbon interceptors, mobile crushing and screening plant, upgrading of the Water Management System, Wastewater Treatment and other ancillaries.

Access to the site will be from the existing main entrance with direct access onto regional road R430. As the proposed development will be largely located within the existing extraction area of c. 14.5 ha, there will be no further land take and it is considered that it will result in a minor change in land cover with a commensurate impact on agriculture. The total application area including the site infrastructure covers c. 19.6 ha of lands (Refer to EIAR Figures 1.2 & 1.3).

The site is serviced by the existing secured, industrial-style gateway with a tarmacadam apron and internal access road to the wheelwash and weighbridge, when recommissioned. The landholding has a c. 700 m of frontage onto regional road R430. The main entranceway occurs c. 200 m southeast of the intersection of local road L77922 with the R430 and is provided with a ghost island for traffic turning right into the quarry.

On completion of site activities, the site of the quarry will be decommissioned and reinstated in accordance with the approved quarry restoration scheme, and thus integrated back into the surrounding landscape. It is envisaged that the land use will change to a beneficial after-use, most probably as a wildlife amenity.

## Drainage & Geology

Knockbaun is located in the Nore River Catchment (WFD River Basin; Code: IE_EA_Nore) of the South Eastern River Basin District (SERBD). However, the boundary between two subcatchments transects the site close to the main entrance. The two subcatchments are the Subcatchment of the Dinin River (WFD Subcatchment Dinin[North]_SC_010) to the east and the Nore River (WFD Subcatchment Nore_SC_060) to the west, while the corresponding sub basins are the Clogh and Owenbeg Sub Basins (WFD River Sub Basins; Code: CLOGH_010 and OWVEG(NORE)_010), respectively.

The Clogh River is a tributary of the Nore River, which flows in a generally southeasterly direction to drain into the Dinin River, c. 1.5 km south of Clogh, which in turn drains into the Nore River c. 5 km north of Kilkenny City and ultimately into the River Barrow c. 2 km north of New Ross. The tributary rises on-site near the entrance and initially flows as a drainage ditch in a southeasterly direction traversing the southeasternmost section of the site and continuing on near Swan. The next nearest watercourse is the Owenbeg River, which lies c. 500 m to the west of the site. Two tributaries of the Owenbeg River, the Knockbaun and Garrintaggart, rise south and north, respectively, of the quarry and flow to the northwest to drain into the mainstream of the Owenbeg River. The Owenbeg River drains into the Nore c. 2.5 km north of Ballyragget. Thus, the Owenbeg River largely skirts the western margin of the Castlecomer Plateau, while the Dinin River obliquely transects the centre of the Plateau, following a major SW-NE oriented Caledonian fault—with both rivers merging north of Kilkenny City.

Details with respect to the local bedrock geology and soils are provided within Section 6 – Land, Soils and Geology. Based on the GSI bedrock map of the area (McConnell & Philcox 1994), the application site is underlain by the Clay Gall Sandstone and Coolbaun formations, both of which correspond to Pennsylvanian (i.e., Upper Carboniferous) units and consist mostly of fine-grained sediments (i.e., sandstones, siltstones, shales and coals).

The landholding was mapped as being overwhelmingly underlain by Lithosols/Regosol soil types (AminSW). Lithosols are skeletal stony soils that are predominantly shallow, well-drained soils derived from non-calcareous materials, and tend to be stony mineral soils. The profiles of Regosols show no distinct horizon development, and usually have a light-coloured A1 horizon directly overlying the C horizon. However, the overburden has been stripped from the bulk of the northern and central sections of the site in order to allow access to the underlying sandstone resource. Narrow strips of overburden remain along boundaries with several larger swathes along the northeast boundary, particularly just north of the entrance and in the northern corner of the site.

A large screening mound of overburden has been placed in the northwest corner of the landholding. The lands in the southeastern section of the landholding, outside the limits of P.A. Ref. 10/383, appear to be largely untouched and remain as scrub.

## Tourism

County Laois is a landlocked, inland county in the south midlands—yet is only c. 70 km from the Dublin metropolitan area. The county is included in Ireland's Ancient East, an umbrella destination brand that should ensure that the area is presented in a unified manner that provides significant future tourism opportunity for the county. The aim of the branding is to

inspire visitors to travel to the Ireland's Ancient East by appealing to their interest in local culture and heritage.

County Laois is home to a number of nationally renowned visitor attractions including; the Emo Court, Rock of Dunamase, Round Tower Timahoe Aghaboe Abbey, Heywood Gardens, Abbeyleix Heritage House, Slieve Bloom Mountains, Nore and Barrow Rivers. Laois has also much to offer visitors in terms of its wide variety of parks, urban culture and attractive and vibrant towns and villages. Fáilte Ireland has recognised the Slieve Bloom Mountains as unique and distinctive experience.

The Council published "A strategic Plan for Tourism in Laois 2018-2023", which states that the new opportunity presented by Ireland's Ancient East must be to the forefront of future tourism development in the county, as it represents a springboard for so many elements of the tourism sector in Laois. Central to successfully aligning with the Ireland's Ancient East opportunity is the focus on creating local visitor experiences. Tourism should increasingly focus on destinations that offer unique and immersive experiences. The growing trend towards activity based tourism and adventure tourism provides a significant opportunity, but it is also essential that the resources upon which these activities are based are protected from inappropriate development.

Laois County Council is well placed to capitalise on the growing demand for experiential holidays in a perceived 'wild' setting with outdoor activity opportunities on offer throughout the county. Participation in adventure activities is becoming increasingly popular amongst visitors and includes the popular activities such as: walking and cycling; game and coarse angling; kayaking & canoeing; and golf and equestrian pursuits.

There has been considerable development of projects, in a sustainable way and in harmony with a high quality environment, such as cycle-ways, greenways and the development of linear and looped walking trails. The Council may continue to seek to harness the potential of the scenic areas, lakes and waterways in a manner that is compatible with the natural heritage and environment of the area, such as in creating water-based trails or 'Blueways'.

Spink Quarry is located in southeast County Laois, c. 85 km from Dublin Airport and c. 80 km from Dublin Port, whilst the nearest settlements are Swan (c. 3 km), Ballinakill (c. 7.0 km), Timahoe (c. 7 km), Abbeyleix (c. 9.5 km), Castlecomer (c. 10 km), Stradbally (c. 13.5 km), Portlaoise (c. 16 km), Carlow Town (c. 19.5 km) and Kilkenny City (c. 27 km). The townland of Knockbaun benefits from the numerous amenities and attractions located within the county, as well as being within easy reach of the vibrant Capital City of Dublin or the arts, crafts and design centre of Kilkenny City. The wider area around Spink Quarry contains numerous historical and archaeological sites, with clusters of Protected Structures at Ballinakill, Durrow and Abbeyleix, Heywood Demesne, Da Vesci Demesne and Abbeyleix Demesne. The distribution of Recorded Monuments in the lowlands is largely dispersed but with distinct to minor clusters at Durrow, Ballinakill, Da Vesci Demesne, Loughill, Knockbaun and Slatt Lower. Notably, the distribution of Recorded Monuments is very thinly dispersed over much of the Castlecomer Plateau.

Further afield, heritage attractions in Laois include: Emo Court, the Rock of Dunamaise, Heywood Gardens, Timahoe Round Tower, Abbeyleix Heritage House, Donaghmore Workhouse, Agricultural Museum, Aghaboe Abbey, Killeshin Romanesque Church and

others. Other attractions include the Dunamaise Arts Centre, Portlaoise, Mountmelick Embroidery Museum, County Carlow Military Museum, Carlow Town, Roscrea Castle and Damer House, and Athy Heritage Centre and Shakleton Museum. Medieval Kilkenny City, c. 27 km to the south, offers a profusion of attractions including Kilkenny Castle, St. Canice's Cathedral, Black Abbey Dominican Priory, Maudlin Castle, Rothe House and Garden, Jerpoint Abbey, Kilkenny Old Jail and Courthouse, Medieval Mile and Museum, National Craft Gallery, and Butler Gallery.

The natural environment of Laois contains many natural attractions, such as the Slieve Bloom Mountains in the northwest, Killeshin Plateau in the southeast and Cullahill Mountain in the southwest. The River Nore, River Barrow and the Grand Canal offer miles of navigable waterways for the more leisurely pursuit of cruising.

There are numerous walking and cycling trails, including the Heyword Gardens, Ballinakill; Kilamuck Bog Loop Walk, Abbeyleix, Lords Walk Loop, Abbeyleix; Castle Durrow Grounds Walking Tour, Durrow Heritage Walking Tour, Durrow Leafy Circular Walk, Dunmore Loop Walk, Durrow, South Laois Bike Tour, Durrow; Slieve Bloom Mountain Bike Trail, Cardtown, Bawnrush, Cardtown; Rosenallis Glenbarrow Red Trail, Meelick, Slieve Bloom Way, Clonaslee, Old Mill Track, Clonaslee; Ridge of Capard, Capard; and Emo Lake Trail, Keeper's Wood.

Golf enthusiasts visiting the area can enjoy a choice of excellent golf courses within a reasonable driving distance. These include Abbeyleix Golf Club, Castlecomer Golf Club, Portlaoise Golf Club, the Heath Golf Club, Portlaoise, the Heritage Golf Resort, Killenard, the Athy Golf Club, Athy, and the Quinagh House Par 3 Golf Course, Carlow Town. Tennis is available at the Abbeyleix Lawn Tennis Club, Castle Durrow Pavilion and Tennis Court, the Carlow Lawn Tennis Club and the Athy Tennis Club. The Laois Cricket Club is located at Main Street, Stradbally.

Horse racing is available at Punchestown, Naas, the Curragh and Gowran Park Racecourse, Kilkenny. There are equestrian activities at numerous nearby equestrian centres, such as the Gales Hill Stables, Ballickmoyler, Calendi Stables, Crettyard, Ballyhyland Cross Country Equine Centre, Ballyhyland, Castlewood Equestrian Centre, Durrow, Rockafoyle Stables, Castlecomer and Kylebrook Equestrian Centre, Stradbally.

The Goldstone Drift Track, Firoda, south of Ballinakill, offers a racetrack for motor enthusiasts, while Castelcomer Discovery Park offers a variety of outdoor adventure activities. Various other activities are available locally at The Mind & Body Yoga and Fitness Studio, Abbeyleix, Lisduff Adventure Farm, Errill, Glosna House Holistic Centre, Roll'n Bowl, Portlaoise, and Laois Angling Centre, Coolrain.

There are a host of festival and events held throughout the year in the Laois, which act as significant visitor attractions (Refer to EIAR Section 4.3.5 for details).

There are several areas of high amenity in the county, including the Slieve Bloom Mountains, Grand Canal Corridor, River Barrow Valley, and River Nore Valley. The townland of Knockbaun lies on the Killeshin Plateau, which is part of the Castlecomer Plateau within Laois, and which is characterised by remoteness and low-density development (i.e., LCT1: Hills and Upland Landscape Character Type). There are no amenity views and prospects within c. 7.5

km of Knockbaun, the nearest being just southeast of Timahoe at Fossy Mountain (Laois County Council 2017).

### Residential

The application site is located within the Townland of Knockbaun, c. 3 km northwest of Swan, c. 7 km east of Ballinakill, c. 7 km south of Timahoe, c. 9.5 km east of Abbeyleix, c. 10 km north of Castlecomer, c. 13.5 km southwest of Stradbally, c. 16 km south of Portlaoise, c. 19.5 km northwest of Carlow Town and 27 km north of Kilkenny City. Access to the site is directly off regional road R430, which connects Mountrath and Abbeyleix to the west with Swan and Carlow to the east. The N77 National Secondary Road can be accessed at Abbeyleix, which is c. 9.5 km west of the site, while the N78 National Secondary Road can be accessed near Swan, c. 3 km to the southeast, thus connecting the site to the principal transport arteries in southeast County Laois.

The site is situated at approximately 215–261 m AOD in a predominantly rural area of southeast County Laois. The surrounding lands are largely agricultural with a forestry plantation abutting the site to the southwest. The site is situated on the northwestem flank of the Castlecomer Plateau, where elevations typically vary from 180 to 270 m AOD, and the topography of the area is that of rolling hills. The Castlecomer Plateau is a region of hills and uplands developed on an outlier of more indurated Upper Carboniferous sediments surrounded by limestones of the central plain. The area is classified as a Structurally Weak Area, which is a rural area that generally exhibits characteristics such as persistent and significant population decline as well as a weaker economic structure based on indices of income, employment and economic growth. These rural areas are more distant from the major urban areas and the associated pressure from urban generated housing, and thus have low population densities (i.e., population density of the Dysartgallen ED is 12.3 persons per km$^2$).

Outside of the immediate environs of the towns, urban areas, and rural villages of Swan, Ballinakill, Timahoe, Abbeyleix, Castlecomer and Stradbally, the settlement pattern in the area can be described as low-intensity rural settlement. Residential property in the area typically comprises a significant number of detached single residences occurring as a more diffuse ribbon development along the road network, while individual farmsteads generally occur at the end of lanes off the public roads. Each house fronts onto the road with its own separate entranceway, typical of ribbon development.

While residential development in the rural area consists of individual, one-off residences, there are distinct clusters of residences that do not qualify as villages, but might constitute hamlets, craigs or small settlements, such as at Spink c. 1 km west of the site. There are no large residential settlements close to the site, with the nearest being the town of Abbeyleix c. 9.5 km to the west. The roads in the wider area (i.e., < 5 km), apart from the R430 Regional Road, are generally of a local character and typical of a rural location.

There are no residences within or abutting the application site. The closest residential property is situated c. 175 m west of the northernmost corner of the application site and is one of a cluster of three residences at Larkin's Cross where the R430 intersects rural roads L7792 and L77921. Two further residences are situated nearby along rural road L77921, while a sixth residence is situated on the L77922 c. 240 m directly across from the site entrance. Because of the intervening hill into which the quarry was driven, the residence situated c. 240

m opposite the site entranceway is the only residence within 250 m that has views of the quarry workings (i.e., No. 4 in Figure 4.1). There has been a long historical association with quarrying at this location and consideration has been given to screening of the development, phasing and direction of working with respect to receptors so as to reduce visual impact, while impacts due to noise and dust are substantially attenuated.

#### 11.4.1.2 Landscape & Landscape Character Assessment

Ireland ratified the European Landscape Convention in 2002 and agreed to implement national measures to promote landscape planning, protection and management. The Planning and Development Act 2000, as amended requires every planning authority to include objectives in their Development Plan for the preservation of the character of the landscape insofar as proper planning and sustainable development of the area requires it, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest.

It is the aim of the Laois County Development Plan "To provide for the protection, management and enhancement of the landscape of the county and to ensure that development does not disproportionately impact on the landscape character areas, scenic routes, or protected views through the implementation of appropriate policies and objectives to ensure the proper planning and sustainable development of the area" (Refer to Chapter 7 of CDP 2017-2023).

Following publication of Draft Guidelines for Planning Authorities in respect of landscape assessment in 2000, County Councils adopted a new method of landscape assessment that allowed for a more proactive approach with the county divided into a number of landscape character areas. The Landscape Character Areas are single unique areas, which are geographical areas of a particular landscape type or types.

Laois County Council undertook a review of landscape provisions in the County Development Plan (CDP) 2011-2017 (Laos County Council 2011) in order to provide a more up to date strategy that classifies the landscape of the county and appraises landscape sensitivity. It was published in 2017, with minor revisions, as Appendix 6 of the County Development Plan 2017-2023 (Laois County Council 2017).

Landscape Character Assessment identifies and describes the landscape character of the entire county. The key objectives of the LCA were to:

1. Improve the understanding of the landscape in the county in terms of its inherent and unique character and to identify the key elements that should be preserved, conserved or enhanced;
2. Devise policies and objectives as guidance to planners and other parties to ensure that change is complimentary to landscape character. Sensitivity and capacity should be given due consideration in all aspects of decision-making; and
3. Assist in the achievement of sustainable development by promoting a unified approach to landscape planning which links policies and recommendations for landscape character to planning policies.

Landscape Character Assessment is a process that describes, maps and classifies landscapes objectively. Defining landscape character enables an understanding to be formed of the inherent value and importance of individual landscape elements and the processes that

may alter landscape character in the future. The cultural and ecological aspects of the landscape cannot be separated from the physical and visual characteristics, such that all these elements are considered.

The Landscape Character Assessment of County Laois focused on characterisation of the landscape based on: (1) physical elements - landform, land cover, geology, vegetation cover, hydrology and ecology; (2) visual characteristics - type and extent of views, enclosure and patterns formed by physical elements; and (3) less tangible aspects such as historical and cultural associations, archaeology, remoteness, tranquility, aesthetic quality and other understandings of the landscape. The process identifies specific areas that are characterised by sensitive landscapes. Sensitive areas include upland areas, visually open and expansive areas and areas in the vicinity of natural heritage or built heritage assets or scenic views. It concentrates on the distinctiveness of different landscapes and on the sensitivity of each landscape to development.

In terms of the landscapes within the County, the interplay between solid geology, glacial processes, soil formation, hydrology and ecology has formed the basic materials upon which human activities have impacted. This is an ongoing inter-relationship with topography, access to water and soil conditions influencing the spatial distribution and types of human activities practiced within the county over the past several millennia. Although human habitation has been the most recent landscape influence, in many ways it has been the most profound. Patterns of land ownership, settlement development, agricultural and ritual activities have all been modified in response to local variations of biotic and abiotic elements and constraints.

The Landscape Character Assessment established 7 Landscape Character Types (LCTs) that are relatively homogeneous in character and share similar combinations of geology, topography, land cover and historical land use. The assessment evaluated the capacity of the different types to accept change without disproportionate effects, and proposed a series of recommendations to guide developments in each type of landscape (Refer to Figure 11.3). It also sets out a series of policies and recommendations to guide developments in each landscape type.

### Landscape Character Type LCT1: The Hills and Uplands

Spink quarry is situated in LCT1: Hills and Upland Areas, which are prominent features in the southeast of the county, roughly corresponding to the Castlecomer Plateau. Although lacking in terms of dramatic peaks, the hills and uplands are a prominent feature, particularly in the southwest and southeast. From the tops of these hills, panoramic views of the lowland landscapes of Laois and adjacent counties can be gained. The Seven Hills, Cullenagh, Cullahill, Fossy Mountains and the upland areas around Swan, Luggacurren and Wolfhill are prominent by virtue of landmarks at their summits as well as their topography.

The hills and uplands form important historic features with an abundance of archaeological features and contain evidence of human settlement extending back 9,000 years.

There is extensive mono-type afforestation and marginal agriculture in these areas, and the field systems and the enclosures associated with them are generally absent in this landscape. New dwellings are comparatively few with much of the older stock abandoned and derelict.

These hills and uplands have potential in terms of tourism development. Linking the most important sites by way-marked trails would be a valuable addition allowing further appreciation of the landscape in a sensitive manner.

### Relevant Recommendations

1. To preserve and enhance the rich heritage assets of these LCT's which provide visible evidence of all four key phases of the County's history.
2. To have due regard to the positive contribution that views across adjacent lowland areas and landmarks within the landscape make to the overall landscape character.
3. To respect the remote character and existing low-density development in these LCTs.
4. To continue and encourage the improved management of field boundaries such as hedgerows and stone walls and hunting copses/ wooded copses.

The first three General Recommendations in respect of LCT1 are potentially relevant to the proposed development at Spink. Although the landscape sensitivity of LCT1 is not explicitly stated in the LCA, it probably corresponds to medium, and can thus accommodate development pressure but with limitations in scale and magnitude. As all developments are unique and landscapes vary in terms of their ability to absorb development at local levels, each site must be assessed on its own merits.

As the quarry was developed on the northeastern flank of a hill, it is only visible from vantages to the north and northeast, but all of these views are limited to middle distance views due to screening by intervening vegetation and topography, particularly including the hill of Knockbaun and nearby hills, as well as the more distant Fossy and Cullenagh mountains. Although plains typically allow vistas over long distances without disruption, there are no views of the quarry from the relatively flat topography of the lowlands to the west. Natural vegetation, coniferous and lesser mixed plantations have a shielding and absorbing quality, and can provide a natural visual barrier as well as adding to the complexity of a vista, breaking it up to provide scale and containment for built forms. The continuance of quarry operations at Spink represents a compatible development in terms of land use.

The LCA does not explicitly identify any scenic routes, but does recognize the existence of scenic routes. It is the Policy of the Council that:

**RUR15** "*Not to permit the convergence of the forest edge and the skylines and avoid geometric shapes particularly in uplands and monitor forestry applications in elevated and prominent landscapes and being conscious of the potentially negative visual impact of forestry development on landscape quality, conservation and harmony and on the surrounding area in terms of its nature and scale (including clearfelling activity), protect from injury scenic and exposed/elevated landscapes, scenic routes, views, prospects and vistas (including to water and valley approaches to the hills), Geological sites, National Monuments, heritage features, Aquatic zones, and in Primary and Secondary Amenity Areas*".

### 11.4.1.3 Areas of Significance or Special Importance

#### 11.4.1.3.1 Amenity Views and Prospects

County Laois contains a number of valuable views and prospects which offer a very attractive view and overall impression of the differing landscapes in the county. The protection of these views and prospects will be done on a case by case basis through the development management process when considering individual planning applications. Development that would seriously hinder or obstruct such views and prospects will not be allowed.

There are 22 scenic views designated across the county (Refer Figure 11.7), based on Figure 29 of the CDP 2017-2023 (Laois County Council 2017). The county contains a number of valuable views and prospects that offer a very attractive cross-sectional view and overall impression of differing landscapes as one traverses the county. Table 27 of the CDP identifies only 13 amenity views and prospects, suggesting that scenic views may comprise one or more amenity views.

The Council recognises the need to protect the amenity view and prospects. The protection of these views and prospects will be done on a case by case basis through the development management process when considering individual planning applications. Development that would seriously hinder or obstruct such views and prospects will not be allowed.

In respect of Amenity Views, it is the policy of the Council to:

| | |
|---|---|
| **AV2** | Discourage development which would materially affect these amenity views and prospects; |
| **AV3** | Ensure that appropriate standards of location, siting, design, finishing and landscaping are achieved. |

Because the quarry was developed by driving into the northeastern flank of a hill, it is only visible from the north to northeastern arc, but all such vantages are limited to middle-distance views due to screening by intervening vegetation and topography.

The lands have generally of small- to medium-sized field pattern, with commonly overgrown mature hedgerows. Elevated vantage points along the local roads provide middle-distance views, while the rolling, hilly landform restricts long-distance views other than from hilltops and high points. Long-distance views are generally not possible from the road network, which tends to be concentrated in the intervening valleys between the hills.

It is notable that there is a complete lack of scenic views within a 5 km radius of the townland of Knockbaun (Refer Figure 11.7). The nearest designated amenity views and prospects to Spink Quarry are at Killamuck c. 10.5 km to the west, the Windy Gap c. 12.5 km to the north northeast, Oughaval Woods, Stradbally c. 13.5 km to the north northeast, and the Rock of Dunamaise c. 15.5 km to the north (Refer Figure 11.7). The nearest scenic views with a viewshed in the general direction of Spink quarry are at the Heath and Rock of Dunamaise, which are c. 15 km north of the site, at which distances visual impact is attenuated. Thus, the site at Spink is sufficiently remote from these sites (>10.25 km), and lies out of the viewshed due to intervening uplands. Fossy Mountain (elev. 330 m), Cullenagh Mountain (elev. 317 m) and the nearer hills of Knockacrin (elev. 293 m), Knocklead (elev. 317 m) and Scotland (elev.

326 m) form a screen covering an arc from NW to NE, while the hill into which the quarry has been driven forms a screen to all views from the west. Thus, the development is not open to views from these designated points, such that the development will not have any significant visual impact on the views and prospects in the county.

#### 11.4.1.3.2 Designated Sites

The proposed development site is not located within a European Site, including Special Areas of Conservation (SAC) and Special Protection Areas (SPA), or any other designated site (i.e., NHA, pNHA, etc.). There are four Natura 2000 sites located within 15 km of the site (Refer to Figure 11.4), the nearest being River Barrow & River Nore SAC (Site Code 002162); followed by Lisbigney Bog SAC (Site Code 000869); River Nore SPA (Site Code 004233); and Ballyprior Grassland SAC (Site Code 002256). With the exception of the River Barrow & River Nore SAC (i.e., c. 1.1 km to the northwest), these sites are distant (> 8.5 km) and occur in different subcatchments, such that there is no reasonable pathway by which the quarry at Spink could impact their habitats or species.

Thus, the site does not have a direct ecological connection with any of the Natura 2000 sites, except for the River Barrow & River Nore SAC site. The River Nore SPA does not extend downstream to where the River Nore and the Barrow merge north of New Ross. The main risk associated with the proposed extension to depth for a portion of the existing quarry at Spink, Co. Laois, is the initially perceived potential adverse impact it could have on receiving surface and groundwaters. However, dewatering volumes are low, and are envisaged to range from 256 to 1,400 $m^3/d$, approximately, in the course of development. Furthermore, the competent solid nature of the rock and the GSI's classification on groundwater recharge suggest that the site's potential interference in the wider groundwater catchment's water balance **is insignificant.**

An ecological assessment, screening for Appropriate Assessment and NIS were carried out with respect to the proposed development.

Like all Midland counties, much of the natural heritage of Laois traverses the county boundaries, such as the River Nore with County Kilkenny and the River Barrow with County Offaly, County Kildare and County Carlow. It is important therefore to ensure that developments that may benefit one county are not permitted to go ahead to the detriment of another.

It is the policy of the Council to:

**CBS1** Co-operate with adjoining local authorities and other agencies in relation to cross border sites such as the Slieve Blooms and waterways and ensure a coherent and strategic approach to their sustainable development and conservation.

In this regard is noteworthy that the southeastern boundary of landholding is located c. 200 m from the Laois-Kilkenny border, and that a tributary of the Clogh River rises on the landholding and flows southeastwards into County Kilkenny.

The screening for Appropriate Assessment (Refer to Appendix 8) found that the potential for significant adverse effects on the River Barrow and River Nore SAC (Site Code 002162) and

the River Nore SPA (004233) is uncertain in the absence of control of potential pollution of discharge water during operation.

The proposed development will require a Water Management Plan to avoid potential impacts on the receiving environment of the Owenbeg and Clogh Rivers and the River Nore downstream.

In the absence of mitigation measures for the control of surface water discharge, it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site and as such Stage 2 AA is required.

The NIS (Refer to Appendix 9) has reviewed the predicted impacts arising from the Proposed Development and found that with the implementation of appropriate mitigation measures specifically with regard to surface water, significant effects on the integrity of the River Barrow and River Nore SAC and the River Nore SPA can be ruled out. It is the conclusion of this NIS (Refer to Appendix 9), on the basis of the best scientific knowledge available, and subject to the implementation of the mitigation measures set out in the NIS, that the possibility of any adverse effects on the integrity of the European sites considered in this NIS, or on the integrity of any other European site (having regard to their conservation objectives), arising from the proposed development, either alone or in combination with other plans or projects, can be excluded beyond a reasonable scientific doubt.

The only designated natural heritage site within 15 km of Spink Quarry is Coan Bogs NHA (Site Code 002382) c. 10.5 km to the southwest. The nearest pNHA is the Timahoe Esker (Site Code 000421) c. 7 km to the north, followed by Lisbigney Bog pHNA (Site Code 000869) c. 8.5 km to the southwest. Other pNHA's within 15 km of the site are: Clopook Wood pNHA (Site Code 000860); River Nore/Abbeyleix Woods Complex pNHA (Site Code 002076); Shanahoe Marsh pNHA (Site Code 001923); Ballylynan pNHA (Site Code 000857); Stradbally Hill pNHA (site Code 001800); Ridge of Portlaoise pNHA (site Code 000876); Dunamase Woods pNHA (Site Code 001494); Rock of Dunamase pNHA (Site Code 000878); and Kilteale Hill pNHA (site Code 000867). As noted above, the nearest NHA or pNHA site is a segment of the Timahoe Esker pNHA at c. 6.9 km. Given the size and scale of the proposed development, the nature of the materials, and the large standoff distances, no direct or indirect impact is expected on these or any pNHA as a result of the recommencement of quarry operations at Knockbaun.

The proposed development was the subject of an assessment that involved the investigation of the cultural heritage including the archaeological, structural and historical background of both the application area and the surrounding area (i.e., 1 km radius) using a wide range of existing information as well as a field assessment (Refer to EIAR Section 12).

There are no known items of cultural heritage, archaeological sites or monuments, protected structures or non-designated structures of heritage value within either the extraction or application area. The quarry is not expected to have indirect impact on items of cultural heritage, archaeological sites or monuments, protected structures or non-designated structures of heritage value in the vicinity of the application site area, although there are five Recorded Monuments and Places (RMPs) within 1 km of the site.

The five RMPs form a cluster north of the site in the townlands of Knockbaun and Cleanagh (Refer to Figure 12.1). These are:

- Standing stone c. 925 north of the site in the townland of Gleanagh (RMP Site Code LA024-048--- );
- Megalithic structure c. 465 north of the site in the townland of Knockbaun (RMP Site Code LA024-052---);
- Standing stone c. 555 northeast of the site in the townland of Knockbaun (RMP Site Code LA024-053---);
- Enclosure c. 875 northeast of the site in the townland of Knockbaun (RMP Site Code LA024-054---); and
- Megalithic structure c. 850 northeast of the site in the townland of Knockbaun (RMP site Code LA024-055---).

There are no Protected Structures (RPS), that are listed in the National Inventory of Architectural Heritage (NIAH), within the proposed development site nor within the 1 km study area. The nearest RPS is a Church/Chapel dating to 1845-1850, known as St. Lazarian's Catholic Church, c. 1.5 km west of the site in the townland of Graiguenahown (Reg. No. 12802409).

There are no Architectural Conservation Areas or NIAH historic gardens or designed landscapes within the proposed development area, or within the 1 km study area. There will be no construction or operational visual impact on the archaeological, architectural or cultural heritage resource.

#### 11.4.1.4 Characteristics of the Development

The development will consist of the continued use and operation of the existing quarry including deepening of the quarry. Extraction will be confined to the existing permitted quarry area (P.A. Ref. 10/383) comprising an extraction area of c. 14.5 ha within an overall application area of c. 19.6 ha. The development will include provision of new site infrastructure, including portacabin site office, canteen, toilets, concrete batching plant and truck washdown facility, hydrocarbon interceptors, mobile crushing and screening plant, upgrading of the water management system, provision of holding tank for wastewater, and other ancillaries. The proposed development will utilise/upgrade the existing insitu quarry infrastructure, including site access, internal roads, storeroom, wheel wash, weighbridge, aggregate storage bays, refuelling hard stand, water settlement pond system, and other ancillaries (Refer to Figure 1.3). The asphalt plant has been removed and there are no plans for its reinstatement. The application area will comprise the full land holding of c. 19.6 ha of lands.

Access to the site will be from the existing main entrance off regional road R430.

The predominant land use within the application site is by definition that of quarrying activities related to the extraction of rock, as well as possibly the value-added operation of concrete production. The area has an established history of quarry working and ancillary activities, and these activities have co-existed with other predominantly agricultural-based land uses. On completion of site operations, the site of the quarry will be decommissioned and reinstated in

accordance with the approved quarry restoration scheme, and thus integrated back into the surrounding landscape. It is envisaged that the land use will change to a beneficial after-use, most probably as a wildlife amenity.

The overburden is stripped by mechanical excavation in order to access the underlying rock and is used to construct peripheral screening berms or embankments or stored for later re-use in landscaping and restoration.

The working method at the quarry utilises explosive techniques. The quarry uses a "drill and blast" method to break the quarry rock face, and the extracted rock is processed on the floor of the quarry using mobile crushing and screening equipment to produce saleable aggregates and/or value-added products, such as concrete.

Because the quarry was developed by driving into the northeastern flank of a hill, the workings are only potentially visible from elevated ground in an arc to the north to northeast. However, intervening topography and dense hedgerows reduce the viewshed of the quarry site to limited middle-distance views on elevated ground. There are six local roads in the immediate area (i.e., L77921, L77922, L77923, L7792, L7923 and L7800), but almost all views of the site are screened from these vantages by intervening topography, hedgerows and scrub. Thus, except for passing views near the entrance only a few limited views of the upper quarry face were identified (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to Plate 11.9).

The site has a long history of quarrying, and these activities have co-existed with other land uses in the area, particularly medium intensity agriculture. Continuance of the quarry operations has the benefit of enabling an appropriate final restoration of the quarry, which will allow full reinstatement of the land to beneficial after-use as a wildlife amenity.

### 11.4.2 VISUAL BASELINE CONDITIONS

As detailed above the desktop study was used to determine the nature of the visual amenity of the area along with the approximate visibility of the development, which is determined through topographic analysis of map data. Potential receptors of visual effects, including residents and visitors through the area were also identified. The desk study provided the basis for subsequent field surveys and was used to delineate the likely zone of visual influence, identify the principal viewpoints and highlight sensitive visual receptors.

For the purpose of this assessment refer to Figure 11.1 and Figure 11.2, which highlight the study area delineated as the likely zone of visual influence, principal viewpoints and sensitive visual receptors identified.

Site visits were undertaken on 17th February 2021 and 1st June 2021. Principal viewpoints were mapped, and these views illustrated by photographs with annotations to describe any important characteristics, and the changes that may arise as a result of the development (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to Plate 11.9).

### 11.4.3 SENSITIVE RECEPTORS

#### Landscape Receptors

The landscape receptors are the components of the landscape that are likely to be affected by the proposed development, and these are:

- Hills and Upland Areas (LCT 1); and
- Individual landscape elements affected, i.e., some scrub vegetation, which will be removed to access the underlying rock resource, and the eastern flank and characteristically rounded shape, of the hill into which the quarry is being excavated. It is proposed that the lands to the east of the current workings will largely be preserved so as to visually screen the workings from vantages to the east.

#### Visual Receptors

The receptors with views of the site consist of road users of the R430 regional road and several local roads (e.g., L77922, L7792, L77921, L7800), as well as local residents (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to Plate 11.9). These two types of receptors experience quite different views in terms the significance of the visual impact, which depends upon the sensitivity of the receptor and the nature, magnitude and duration of the effect.

There are 36 residences within a 1 km radius of the quarry site (Refer EIAR Figure 4.1). The closest residence is located c. 175 m west of the site and is one of a cluster of three houses at Larkin's Cross. There are only four residences within 250 m of the site, but all but one of these residences (i.e., No. 4; Refer Figure 4.1) are sheltered, in terms of visual, noise and dust impacts, behind the hill into which the quarry is developed. Indeed, another 12 residences between 500 m and 1 km of the site (i.e., Nos. 11 to 22) are similarly sheltered behind the hill. Of the 13 residences within 1 km of the site that are not sheltered behind the hill, one lies within 250 m (No. 4), four more lie between 250 m and 500 m (i.e., Nos. 7-10), and seven more lie between 500 m and 1 km (i.e., Nos. 23-30).

There are partially open views of the quarry workings from the R430, particularly at the site entrance, although these tend to be transient momentary views to passing traffic on the R430.

## 11.5 ASSESSMENT OF IMPACTS

The following Impact Assessment matrix provides an indication of the significance of potential effects arising during the life cycle of the development not accounting for any mitigation measures.

**Table 11.1 Landscape - Impact Matrix**

| | | | |
|---|---|---|---|
| 'Do Nothing' Impacts | ● | | |
| Factors | **Construction** | **Operation** | Decommissioning |
| Direct Impacts | ● | ● | X |
| Indirect Impacts | X | X | X |
| Cumulative Impacts | X | X | X |
| Residual Impacts | X | X | ● |
| `Worst Case' Impacts | X | ● | X |

**None/imperceptible: X; Slight: ●; Moderate: ●; Significant/Very significant: ●.**

*Refer to Appendix 3 for definition of Significance*

The proposed development is situated within the Hills and Uplands Landscape Character Type (i.e., LCT1), which probably has a medium landscape sensitivity. Thus, LCT1 has a limited capacity to absorb development, which can have a disproportionate visual impact. This arises from the limited capacity of this rural landscape to physically or visually absorb development, and the sensitivity of the adjoining areas of high amenity. There are no scenic views sufficiently near the site (< 5 km) to suffer any adverse visual impact due to the development. The quarry site is also not included in any area with an ecological designation (SAC, SPA, NHA or pNHA).

Sensitive development and conservation of the landscape resource is essential to the underpinning of the rural economy and quality of life of the area. However, it is recognised that areas where there is existing development probably have a much higher potential to absorb new development. Thus, the reopening of an existing quarry is more readily absorbed than activation of a new quarry in a greenfield site.

Perimeter berms, particularly along the northeastern site boundary with the R430, have already been constructed as part of the quarry development works.

### 11.5.1 'DO NOTHING' IMPACTS

The existing site permitted under P.A. Ref. 10/383 comprises a moderate-sized (i.e., c. 16.8 ha) hardrock quarry that has been extensively worked with some remaining infrastructure and stockpiles on the quarry floor. Under the 'Do Nothing' scenario, all quarrying and ancillary activities would cease. The site would be restored as per the requirements of the existing planning permission (P.A. Ref. 10/383). However, the substantial aggregate resource would remain in situ, necessitating that another site, possibly a greenfield site, would have to be worked to make-up the shortfall in aggregate supply.

### 11.5.2 DIRECT IMPACTS

#### 11.5.2.1 Landscape Impacts

The principal attributes (and impacts) to be assessed include *inter alia* the following:

- Change of landform from agriculture to quarrying and restoration to wildlife amenity with appropriate screening and planting;
- Change of land use from quarrying/extraction to restored land;
- The loss of ecological habitat as a result of the quarry activity, which would be eventually reversed when the wildlife amenity is established;
- The loss of any cultural heritage features (unknown) to the quarry activity;
- Views of screening berms at northeastern boundary of property along the R430; and
- Views of infrastructure and plant.

The results of the impact assessment are presented in Table 11.2 below.

#### 11.5.2.2 Visual Impacts

The results of the visual field survey have shown that due to intervening topography, screening, and vegetation, views towards the quarry site are generally limited to restricted mid-distance views from elevated ground and residences to the north (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to Plate 11.9).

#### 11.5.2.3 Indirect Impacts

There are no indirect impacts associated with the proposed development and the surrounding areas.

#### 11.5.2.4 Cumulative Impacts

The only other land use activities visible in the area are existing farming operations, and residential and commercial use within the village, as well as residential use by numerous single dwelling houses in the surrounding rural area.

There are no other significant developments within c. 3.0 km of the site at Spink. The absence of any extractive or industrial developments within c. 3 km renders the likelihood of significant negative cumulative landscape impacts highly improbable.

There will be no significant in combination landscape impacts resulting from this project, and other local existing developments, quarries, projects and plans.

#### 11.5.2.5 Transboundary Impacts

The EIA Directive 2014-52-EU invokes the Espoo Convention on Environmental Impact Assessment in a Transboundary Context, 1991, and applies its definition of transboundary impacts. Given the location (c. 135 km from the border with N. Ireland), nature, size and scale of the proposed development, it is expected that the impacts of the development would have no significant transboundary effects on landscape, given the local or at most regional nature of landscapes.

#### 11.5.2.6 Residual Impacts

As a result of the proposed mitigation and enhancement measures incorporated in the design, no significant, adverse residual impacts are predicted in terms of Landscape during the operational phase.

It is considered that following full restoration and closure of the site that there will also be no significant, long-term, adverse impacts in terms of Landscape. The restored quarry will provide a more sustainable, long-term environment than is currently the case, but with a change in land-use from the original agricultural use to mineral extraction to ultimately a future beneficial use as a wildlife amenity.

#### 11.5.2.7 'Worst Case' Impacts

The worst case impact would be significant in the medium term if the quarry was to be developed in an uncontrolled manner with no consideration given to provision of screening of the development along the northern and western boundaries.

There are no residences within or abutting the site and landholding, while only four residences are located within 250 m. However, because of the intervening hill into which the quarry was worked, the residence situated c. 240 m opposite the site entranceway is the only residence within 250 m that has views of the quarry workings (Refer to Figure 11.1 and Figure 11.2 and Plate 11.9).

It is expected that in the absence of mitigation measures that there will be slight to moderate negative effects with respect to local amenity and residential receptors as a result of the development of Spink Quarry.

Consideration has been given to screening using preservation of existing vegetation, favourable direction of working, provision of screening berms as necessary, progressive restoration of upper quarry face and the final restoration of the quarry site once operations at the site cease (Refer to EIAR Section 3.4).

## Table 11.2 Landscape Impact Assessment Matrix

| Topic area | Description of impact | Magnitude[1] | Sensitivity[1] | Level of importance[1] | | | | | Quality[2] | | | Duration[2] | | | | | Significance[2] | Mitigation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | I | N | R | C | L | Positive | Neutral | Negative | ST | MT | LT | P | T | | |
| Landform | Change of landform from agriculture to quarrying and restoration to agriculture with appropriate screening and planting. | L | VL | | | | | | | | | | | | | | Slight to Moderate | Area will be restored to beneficial agricultural use and secure wildlife refuge. |
| Land use | Change of land use from quarrying/extraction to beneficial agricultural use and secure wildlife refuge | VL | VL | | | | | | | | | | | | | | Slight | Area will be restored to beneficial secure wildlife refuge |
| Loss of ecological habitat | The loss of ecological habitat as a result of the quarry activity will result in a local impact on ecology but will not result in any loss of heritage values in the locality. The changes will be both negative (loss of open habitats) and positive (gain of woodland/scrub over time). | VL | VL | | | | | | | | | | | | | | Slight | Area will be restored to beneficial secure wildlife refuge. |
| Loss of cultural heritage | No direct impacts on known archaeological or architectural heritage | N | N | | | | | | | | | | | | | | Imperceptible | As the proposed development will have no direct or indirect impact on the archaeological, architectural or cultural heritage resource, it is considered mitigation measures are not required. |
| Views of quarry workings | Views of upper quarry face and workings at site entrance and partial views from residences to north. Overburden mound on western boundary to be landscaped | L | ML | | | | | | | | | | | | | | Slight to Moderate | The screening berms and existing mature planting will be maintained to prevent outside views of the quarry lands under restoration. Restoration of residual faces. (Preserve representative sections of quarry face in consultation with IGH). Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| Views of infrastructure and plant | Views of Plant and Machinery including proposed concrete plant from outside views. | VL | L | | | | | | | | | | | | | | Slight | All Plant and Machinery to be sited on existing quarry floor being screened by intervening screening berms and perimeter landscaping |

**Key**

Level of importance I = International; N = National; R = Regional; C = County; L = Local

Magnitude and sensitivity N = Negligible; VL = Very Low; L = Low; ML = Medium–Low; M = Medium; MH = Medium–High; H = High; VH = Very High

**Notes**

1 Criteria used based on The Landscape Institute with the Institute of Environmental Management & Assessment, (2005) Guidelines for Landscape and Visual Impact Assessment - 2nd Ed.

2 The terminology used based on Table 3.3 EPA (2017) Guidelines on the Information to be contained in an Environmental Impact Assessment Report, Draft, Environmental Protection Agency (EPA) Wexford.

## Table 11.3 Predicted Visual Impacts with Mitigation

| NATURE OF IMPACT | | | | Level of importance[1] | | | | | Quality[2] | | | Duration[2] | | | | | Magnitude[1] | Receptor Sensitivity[1] | Significance[2] | Mitigation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Viewpoint | Plate | Location | Description | I | N | R | C | L | Positive | Neutral | Negative | ST | MT | LT | P | T | | | | |
| 1 | 11.1 | View from junction of L7992 with R430 225m to west of site | Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage | | | | | | | | | | | | | | VL | L | Slight | Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| 2 | 11.2 | View from L7800 c. 1.1 km west of quarry | Quarry largely screened from view by planted screening berm. Upper quarry face open to partial views. | | | | | | | | | | | | | | ML | M | Slight to Moderate | • Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.<br>• Upper quarry face has been partially restored.<br>• Encourage natural colonisation to further break up back face.<br>• Decrease height of existing stockpiles so that they are not visible from vantages to the north.<br>• Existing screening along R430 will ensure that residual quarry face along southern boundary will not be open to view as the quarry is further developed eastwards during Phase 2. |
| 3 | 11.3 | View from Headen's Bar, Spink at Junction of L7793 with R430 880 m to west | Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage | | | | | | | | | | | | | | VL | VL | Slight | Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| 4 | 11.4 | View from Chapel Crossroads, Junction of L7800 with R430 c. 1.6 km west | Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage | | | | | | | | | | | | | | VL | VL | Slight | Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| 5 | 11.5 | View from St Laserians Church Yard, c. 1.4 km west | Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage | | | | | | | | | | | | | | VL | VL | Slight | Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| 6 | 11.6 | View from L7800 c. 1.1 km west of quarry | Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage | | | | | | | | | | | | | | VL | VL | Slight | Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m. |
| 7 | 11.7 | View from R430 c. 515 metres to west of existing quarry | Existing quarry workings not open to view. | | | | | | | | | | | | | | VL | VL | Slight | • Lands to west of quarry workings to be retained for screening of quarry workings<br>• Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards |
| 8 | 11.8 | View from L77922 c. 475 metres to northeast of existing quarry | Quarry workings largely screened by intervening vegetation and topography. Upper quarry face open to partial views. | | | | | | | | | | | | | | ML | M | Slight to Moderate | • Upper quarry face has been partially restored.<br>• Restoration of Upper Quarry face<br>• Encourage natural colonisation to further break up back face.<br>• Lands to west of quarry workings to be retained for screening of quarry workings<br>• Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards |
| 9 | 11.9 | View from L77922 c. 170 metres to north of existing quarry | Quarry workings largely screened by intervening vegetation, screening berms and topography. Upper quarry face open view. | | | | | | | | | | | | | | ML | M | Moderate | • Upper quarry face has been partially restored.<br>• Restoration of Upper Quarry face<br>• Encourage natural colonisation to further break up back face.<br>• Lands to west of quarry workings to be retained for screening of quarry workings<br>• Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards<br>• Decrease height of existing stockpiles so that they are not visible from vantages to the north. |

**Key**

Level of importance I = International; N = National; R = Regional; C = County; L = Local

Magnitude and sensitivity N = Negligible; VL = Very Low; L = Low; ML = Medium–Low; M = Medium; MH = Medium–High; H = High; VH = Very High

**Notes**

**1** Criteria used based on The Landscape Institute with the Institute of Environmental Management & Assessment, (2005) Guidelines for Landscape and Visual Impact Assessment - 2nd Ed.

**2** The terminology used based on Table 3.3 EPA (2017) Guidelines on the Information to be contained in an Environmental Impact Assessment Report, Draft, Environmental Protection Agency (EPA) Wexford.

## 11.6 MITIGATION MEASURES

Mitigation measures include avoidance, reduction, compensation and remedy of potential impacts. The primary means of mitigation involves an efficient design and layout for the quarry that optimises use of existing infrastructure, screening using hedgerows and trees, and the full restoration of the quarry site, once operations at the site cease.

The quarry development will be worked top-down and phased with initial development focused on working the exposed sandstone reserves below the current quarry floor in two benches to c. 206 m AOD and 200 m AOD towards the west. Phase 2 will see the quarry developed to 190m AOD by development of the quarry in an easterly direction.

Consideration will be given to preserving most of the bank and scrub vegetation along the Regional R430 and lands to the south of the currently permitted quarry area (P.A. Ref. 10/383), so as to visually screen future development of the quarry within Phase 2. This will ensure that the upper back face is restored at the earliest opportunity, that the working face is not open to view, and that as the quarry pushes eastwards only the restored upper face will be revealed as quarrying progresses to the limit of extraction.

The proposed development will also enable the operator to fully complete the restoration of the both the proposed and existing quarry to a secure wildlife habitat which is at the moment in a semi-derelict state.

A working scheme has been designed for the quarry which provides for the sequence and direction of working. The objective of this scheme is to reduce as far as possible the overall visual impact of the workings. The quarry will also be worked in a favourable direction (west to east) so that site operations will be on the quarry floor being screened from outside views. The existing, bank, hedgerow, scrub and trees shall be preserved along the boundary with the Regional Road, and as such the view from the above vantages will be largely preserved (Refer to Figure 11.1 and Figure 11.2 and Plate 11.1 to Plate 11.9). Plans and Sections of the design and associated restoration are shown on Figures 3.1 to 3.3.

Site restoration allows vegetation to become established during the course of the development, thereby reducing the overall impact of the development (i.e. visual impact, dust impact, flora and fauna impact, etc.). It also has the added benefit to the operator of spreading out the cost of restoration over the life of the development.

Grading and planting on completed sections of the upper quarry face will be carried out as shown by Figures 3.2 to 3.3. The upper benches will be seeded with suitable species of shrubs and climbers to create vegetated ledges. Seeding with shrubs and climbers and natural colonisation on these faces will encourage growth on the faces and will subsequently break up the inherent harshness of the exposed rock face.

It is anticipated that final restoration will be achieved within two years of completion of extraction operations. Final restoration will be to agriculture/secure wildlife habitat. A detailed planting and landscaping plan has been prepared as part of the application

(Refer to Figure 2.3). The perimeter overburden storage areas will be landscaped to form part of a woodland/ nature reserve area.

Redundant structures, plant equipment and stockpiles will be removed from site on cessation of quarry activity. The former plant areas will be restored using topsoil/overburden and planted with a mixture of native trees and shrubs.

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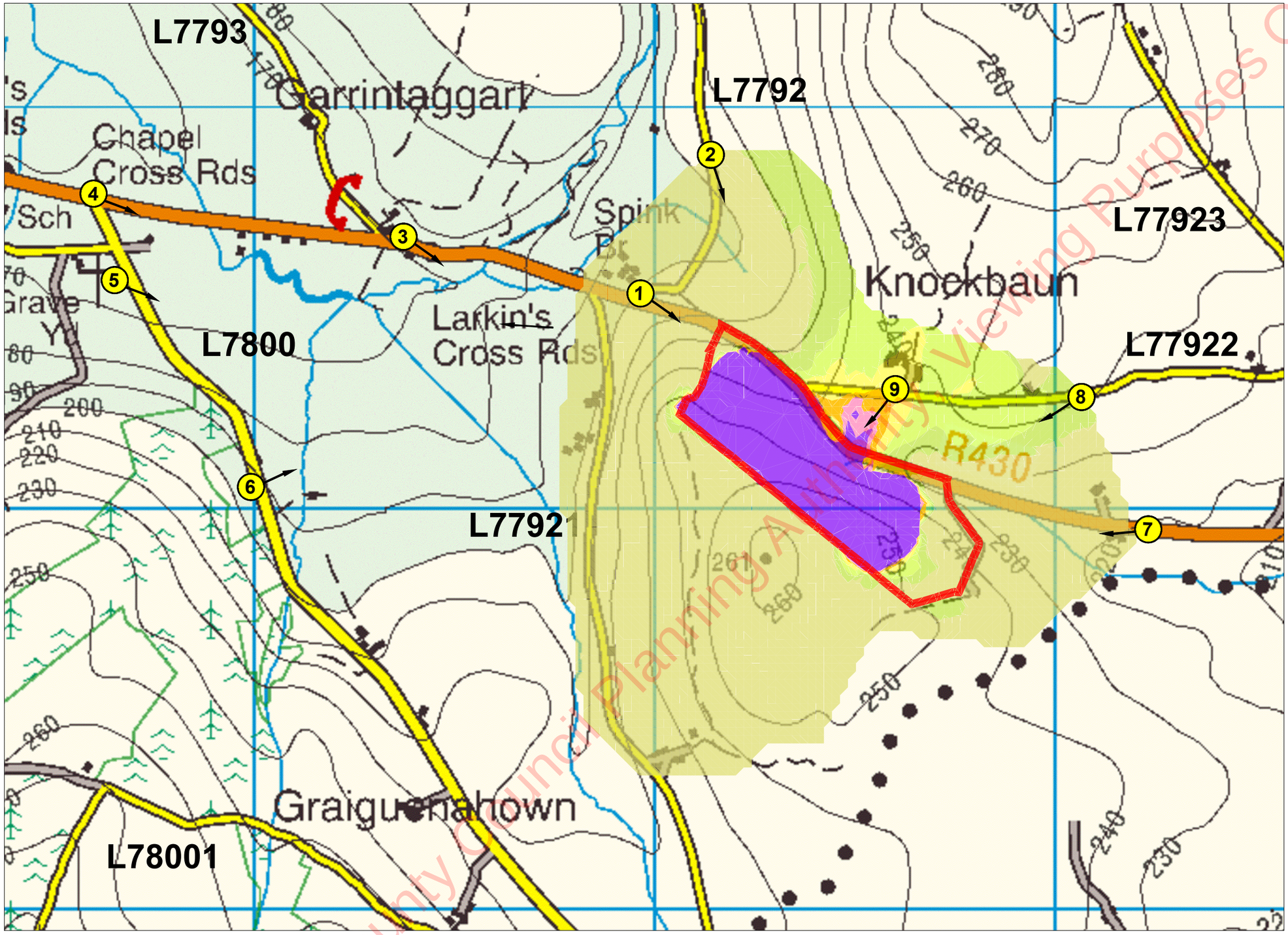
https://laois.ie/ Laois County Council

## 11.8 FIGURES






Legend

Application Area *(c. 19.6 ha)*

- >6 degrees
- Between 5 & 6 degrees
- Between 4 & 5 degrees
- Between 3 & 4 degrees
- Between 2 & 3 degrees
- Between 1 & 2 degrees
- <1 degrees

1 Principle Views *(Refer to corresponding Plates 11.1 to 11.9 for details)*

L7800 Local Roads

| | |
|---|---|
| CLIENT | **Lagan Materials Ltd** |
| DRAWING | **Vertical ZTV Analysis** |
| LOCATION | **Knockbaun, Spink Co. Laois** |



NOTES:

1. All Dimensions in metres (m)
2. Elevation Levels - metres Above Ordnance Datum (mAOD)
3. Extract from 1:50,000 OSI Discovery Series Map No. 60 & 61

**Scale 1:10,000**

0m 500m 1km

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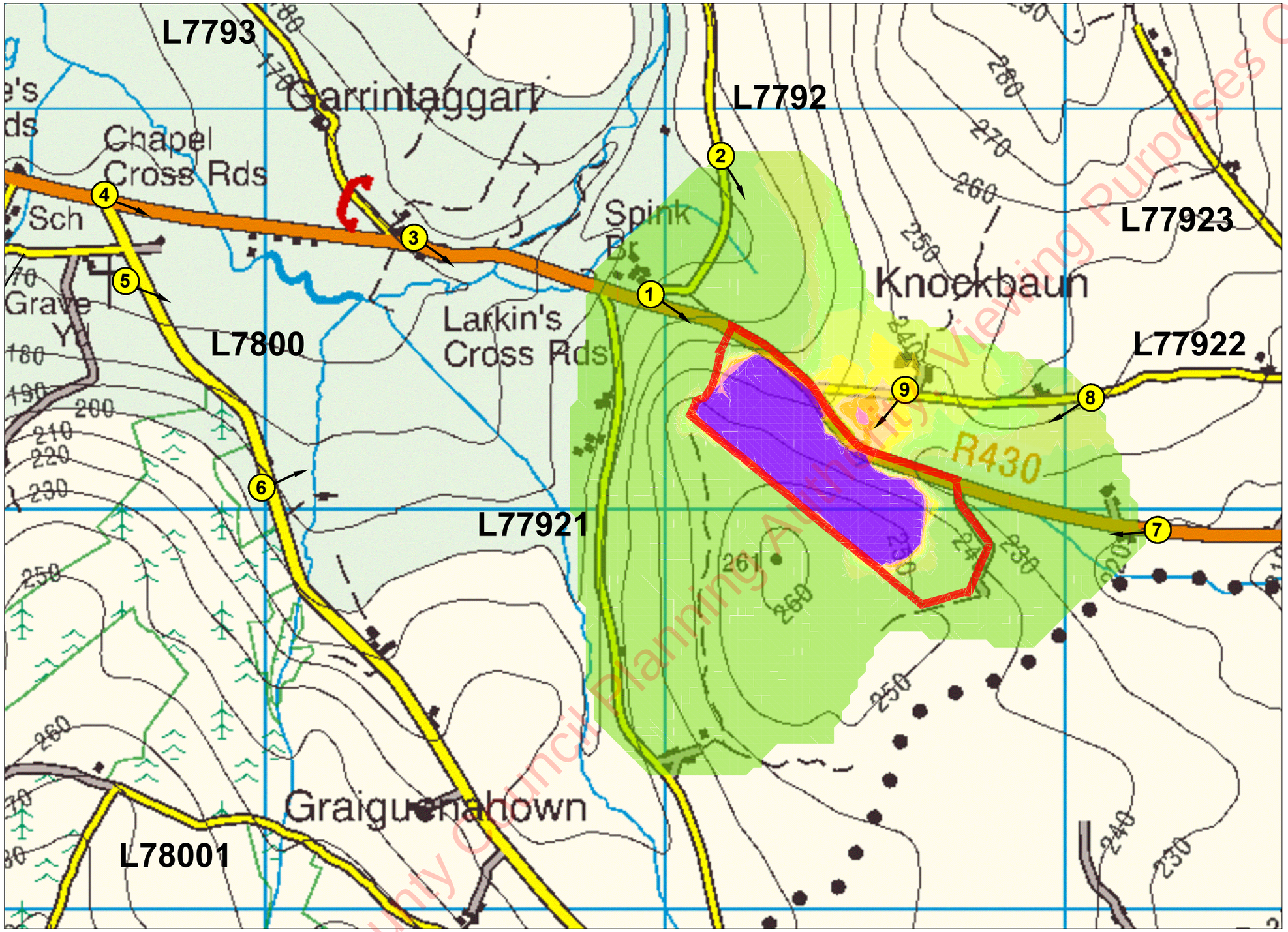
| | | | |
|---|---|---|---|
| Drawn by: John Sheils | | Scale: 1:10,000 | |
| Checked by: John Sheils | | Job No.: JSPE 280 | |
| Date: 03/07/2021 | | Figure No.: 11.1 | Rev.: 00 |






Legend

Application Area *(c. 19.6 ha)*

- >160 degrees
- Between 140 & 160 degrees
- Between 120 & 140 degrees
- Between 100 & 120 degrees
- Between 80 & 100 degrees
- Between 60 & 80 degrees
- Between 40 & 60 degrees
- Between 20 & 40 degrees
- < 20 degrees

1 Principle Views (Refer to plates for details)

L7800 Local Roads

| | |
|---|---|
| CLIENT | **Lagan Materials Ltd** |
| DRAWING | **Horizontal ZTV Analysis** |
| LOCATION | **Knockbaun, Spink Co. Laois** |



NOTES:

1. All Dimensions in metres (m)
2. Elevation Levels - metres Above Ordnance Datum (mAOD)
3. Extract from 1:50,000 OSI Discovery Series Map No. 60 & 61

**Scale 1:10,000**

0m 500m 1km

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|---|---|---|
| Drawn by: John Sheils | Scale: 1:10,000 | |
| Checked by: John Sheils | Job No.: JSPE 280 | |
| Date: 03/07/2021 | Figure No.: 11.2 | Rev.: 00 |

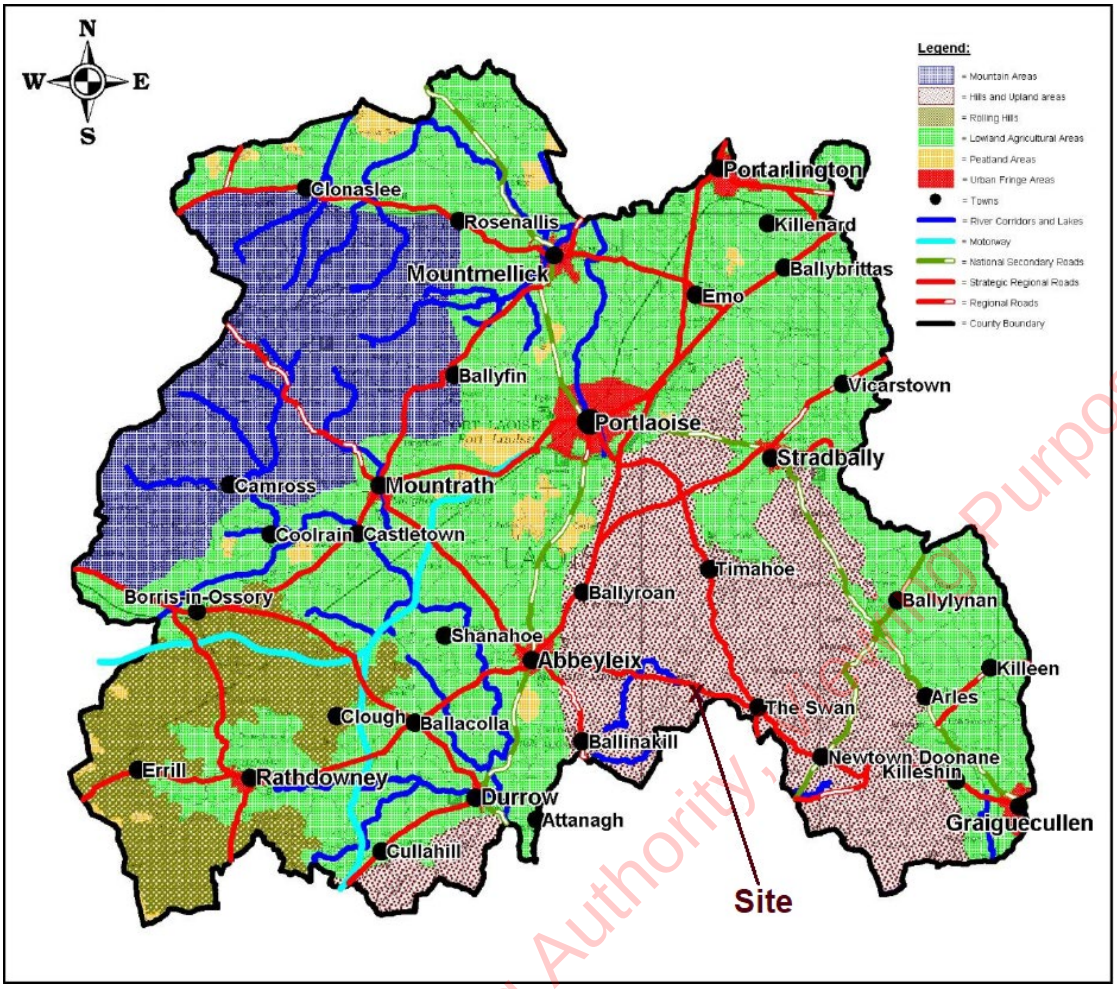



**Figure 11.3 Map of Landscape Character Types of County Laois.**

*Map of Laois showing Landscape Character Types (LCTs). Location of site within LCT1: Hills and Uplands LCT is marked by an "X". Scale bar at lower right. Modified from Laois County Council (2017).*

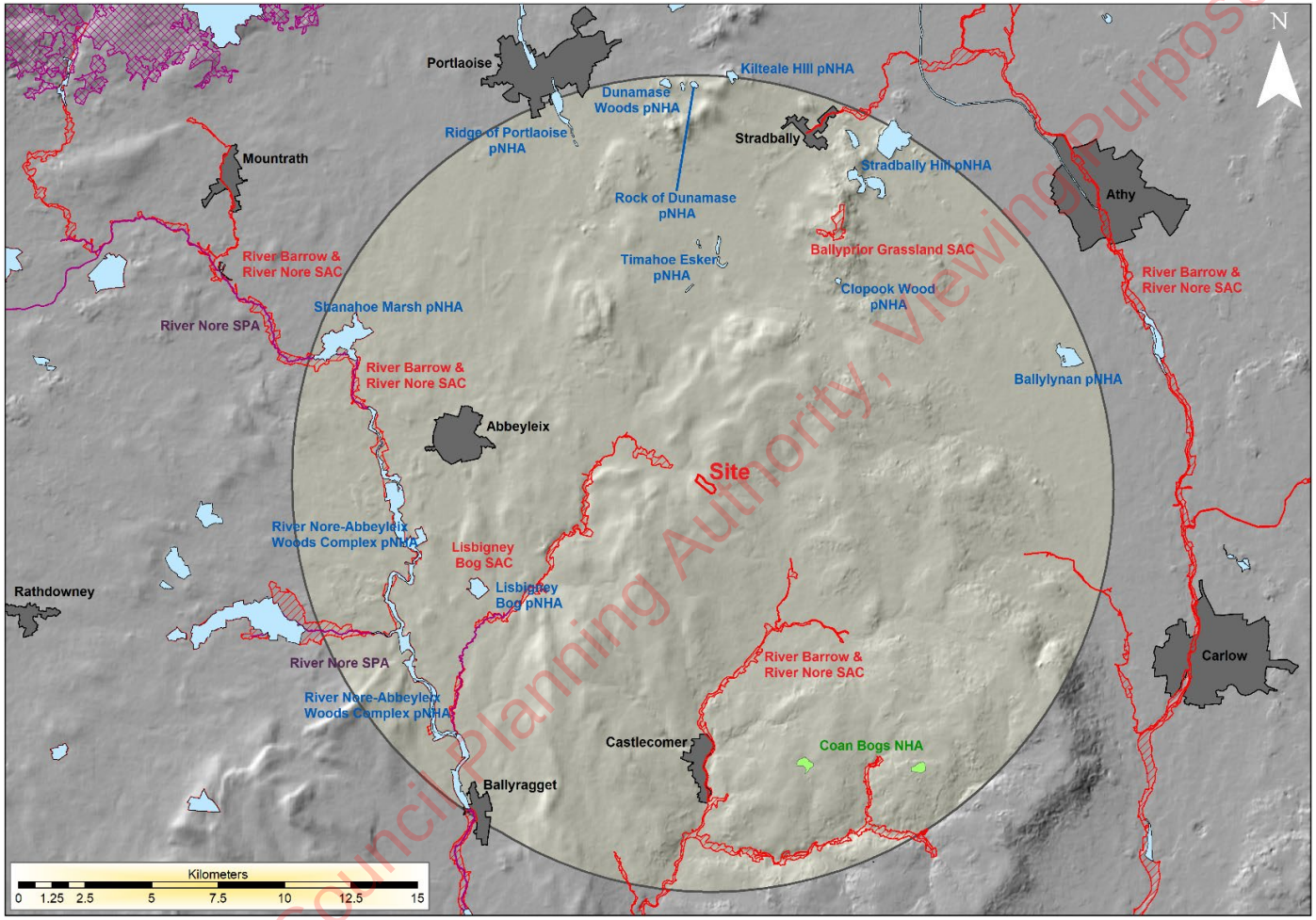



**Figure 11.4 SACs, SPAs, NHAs and pNHAs.**

Rendered in ArcGIS 10.3 using data from the NPWS (2019) overlain on image from ESRI's world imagery.

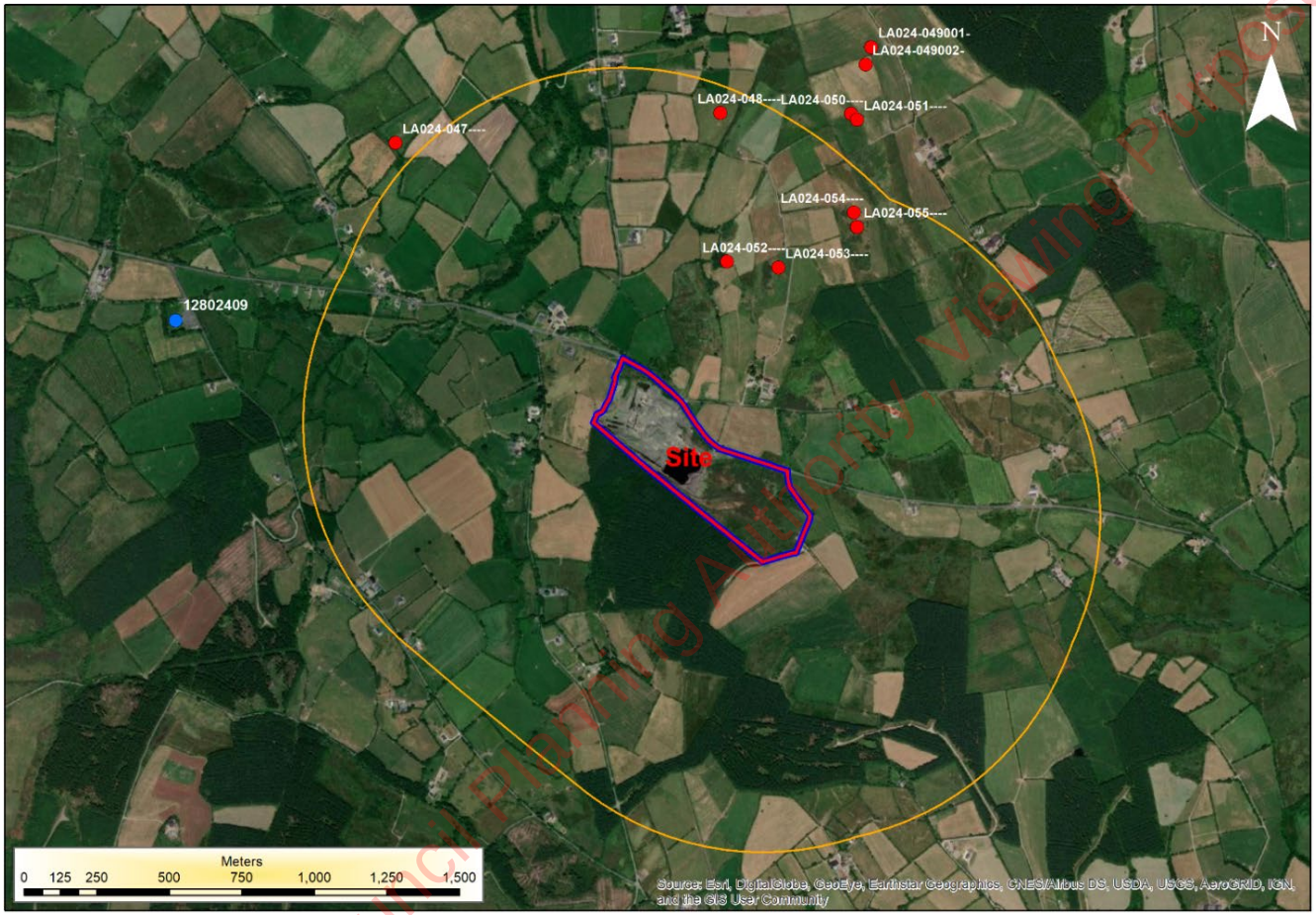



**Figure 11.5 Monuments (RMPs) and Protected Structures (SMPs) in the Knockbaun area.**

*Aerial image of the Knockbaun area, showing 1 km buffer around the application site (orange line). There are 5 RMPs, denoted by red dots. Note none of these is located on the landholding or application site. There are no SMPs, denoted with blue dots, within the 1 km study area. Boundary of landholding shown in blue, while boundary of application site shown in red. Rendered in ArcGIS 10.3 using data from the DoCHG (2019) overlain on image from ESRI's world imagery.*

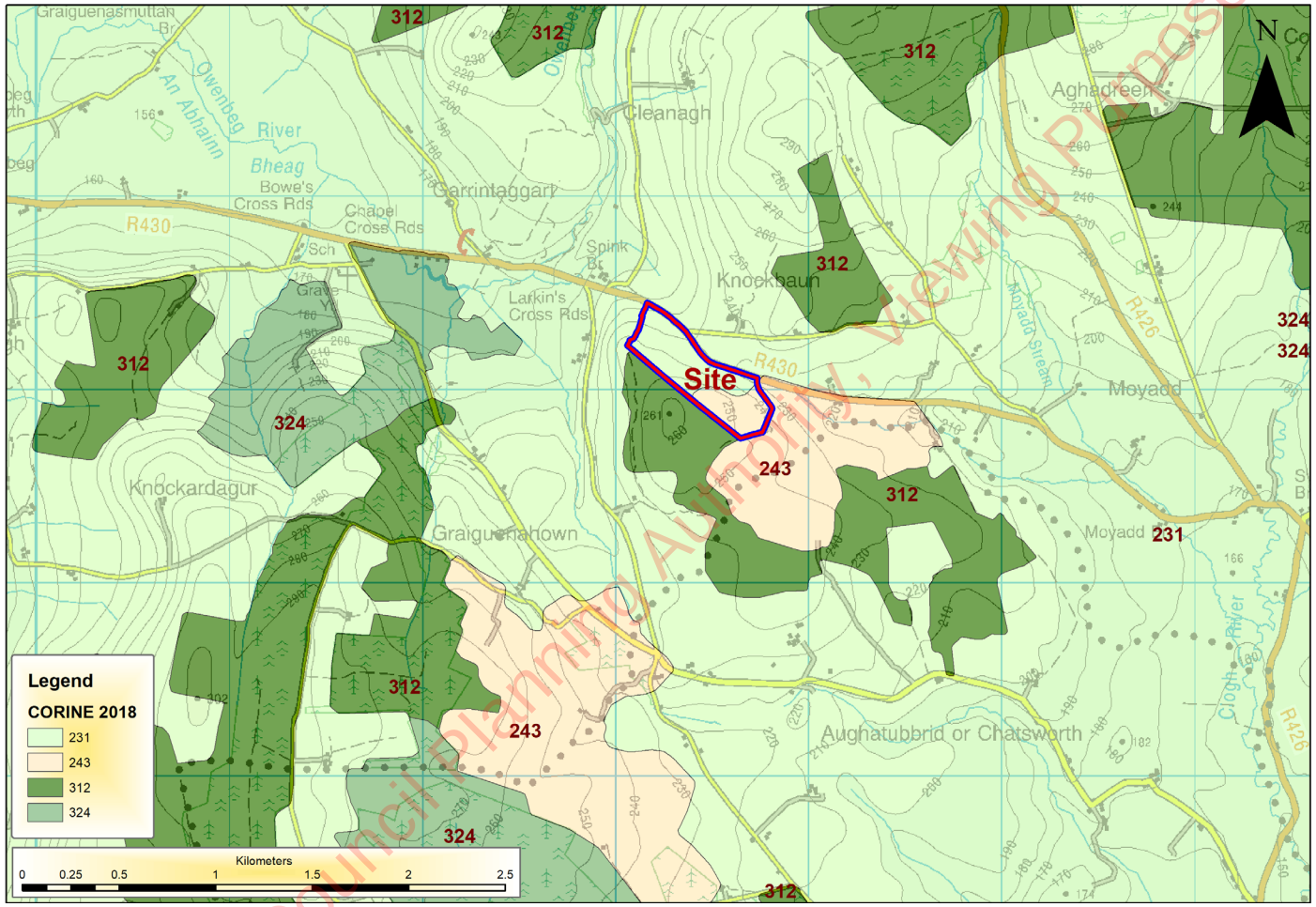



**Figure 11.6 The 2018 Corine Land Use map of the Knockbaun area.**

*Note: Non- Pastures (231); Land principally occupied by agriculture, with significant areas of natural vegetation (243); Coniferous forest (312); and transitional woodland scrub (324). Landholding at Spink Quarry is indicated by a blue line A, with the application site indicated by a red line. Rendered in ArcGIS 10.3 using data from EPA.*

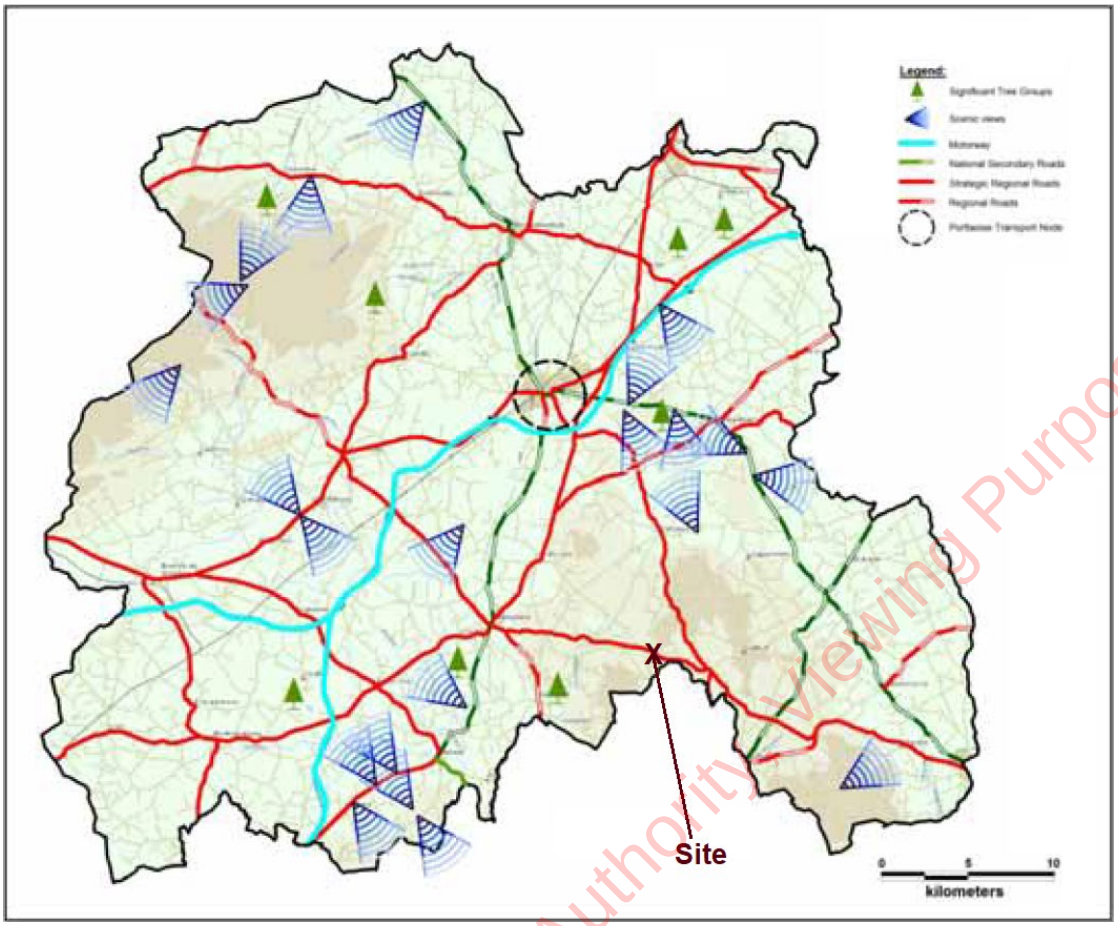



**Figure 11.7 Map of Scenic Views across County Laois.**

*There are 22 designated points, but there are none within 10 km of Knockbaun. The site at Knockbaun is sufficiently remote from these sites (>10.25 km), and lies outside of the viewshed due to intervening uplands, such that the development is not open to views from these designated points. Redrawn from Laois (2017).*

## 11.9 PLATES

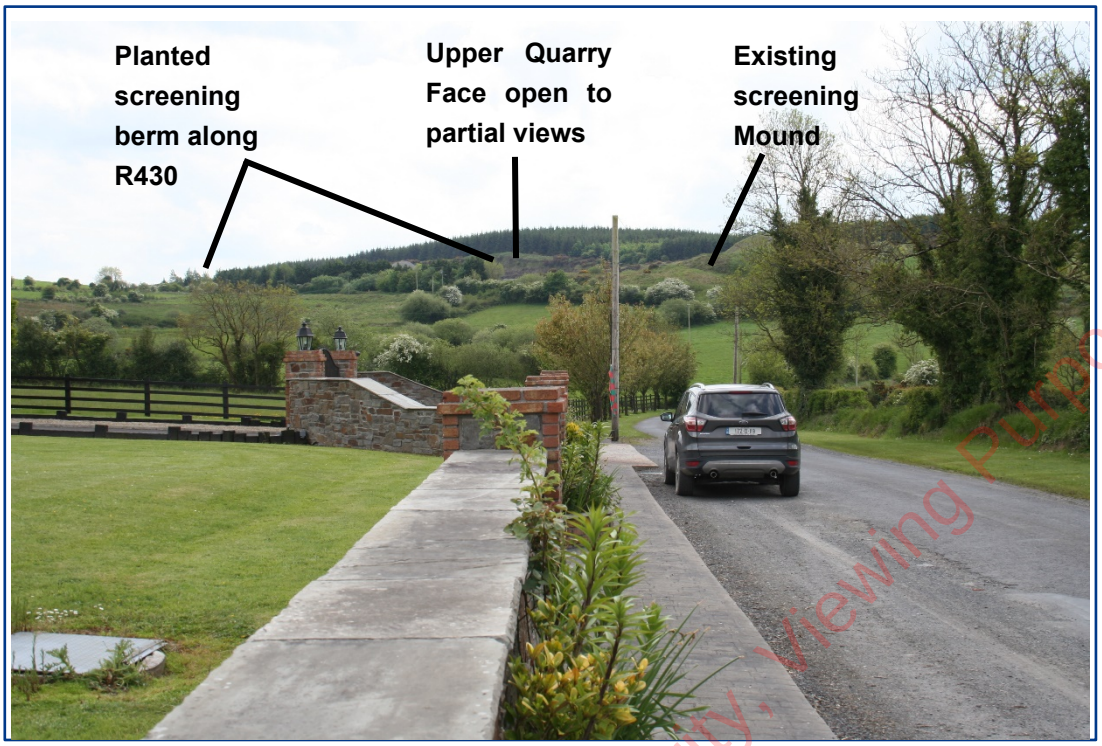
**Plate 11.1 View from junction of L7992 with R430 225m to west of site**


*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage

**Mitigation:** Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

## Plate 11.2 View from L7800 c. 1.1 km west of quarry




*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry largely screened from view by planted screening berm. Upper quarry face open to partial views.

**Mitigation:** - Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

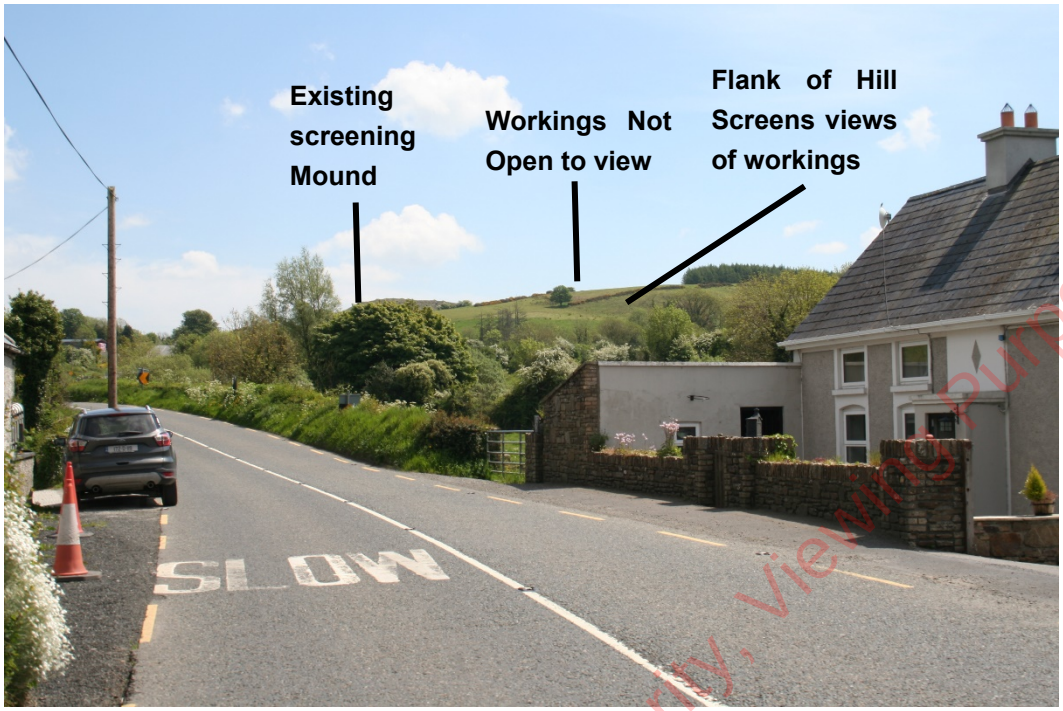
- Upper quarry face has been partially restored.

- Encourage natural colonisation to further break up back face.

- Decrease height of existing stockpiles so that they are not visible from vantages to the north.

- Existing screening along R430 will ensure that residual quarry face along southern boundary will not be open to view as the quarry is further developed eastwards during Phase 2.

## Plate 11.3 View from Headen's Bar, Spink at Junction of L7793 with R430 880 m to west

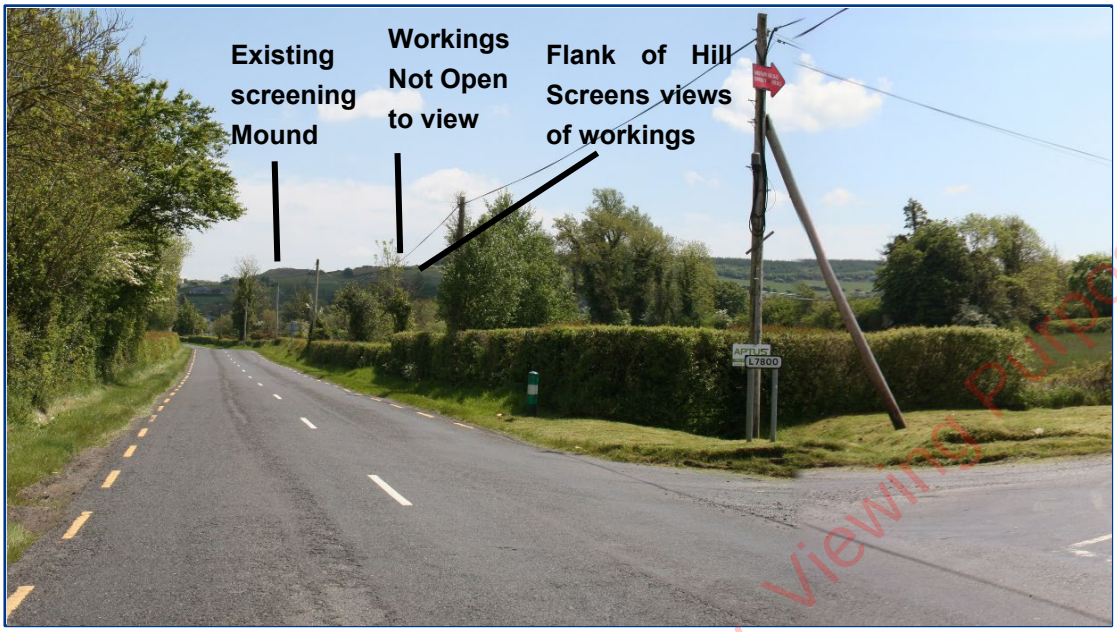



*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings not open to view. Flank of hill and screening mound screens quarry workings from this vantage

**Mitigation:** Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

## Plate 11.4 View from Chapel Crossroads, Junction of L7800 with R430 c. 1.6 km west

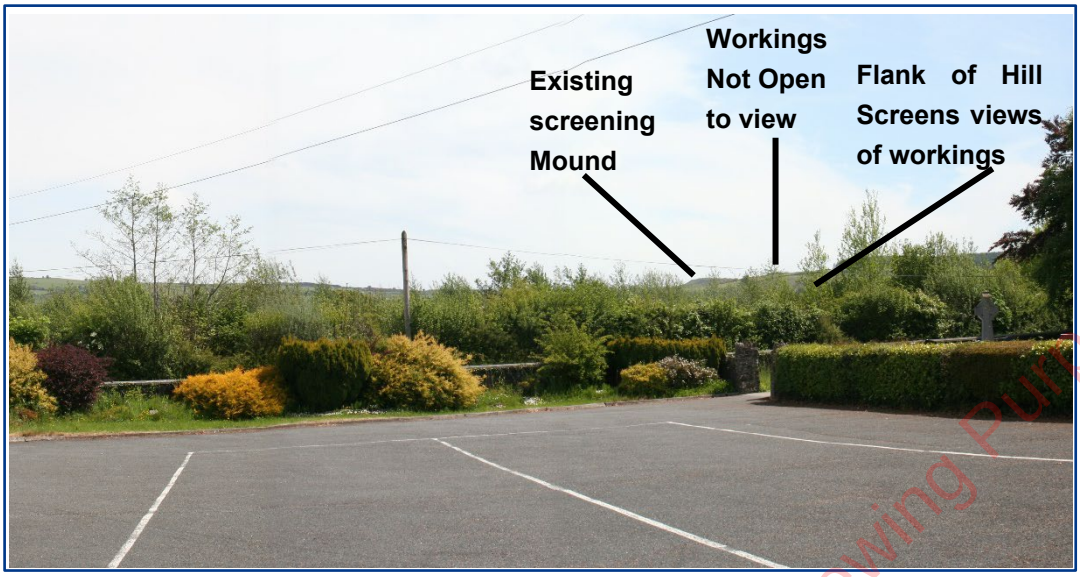



*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings not open to view. Flank of hill and screening mound screen quarry workings from this vantage

**Mitigation:** Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

## Plate 11.5 View from St Laserians Church Yard, c. 1.4 km west

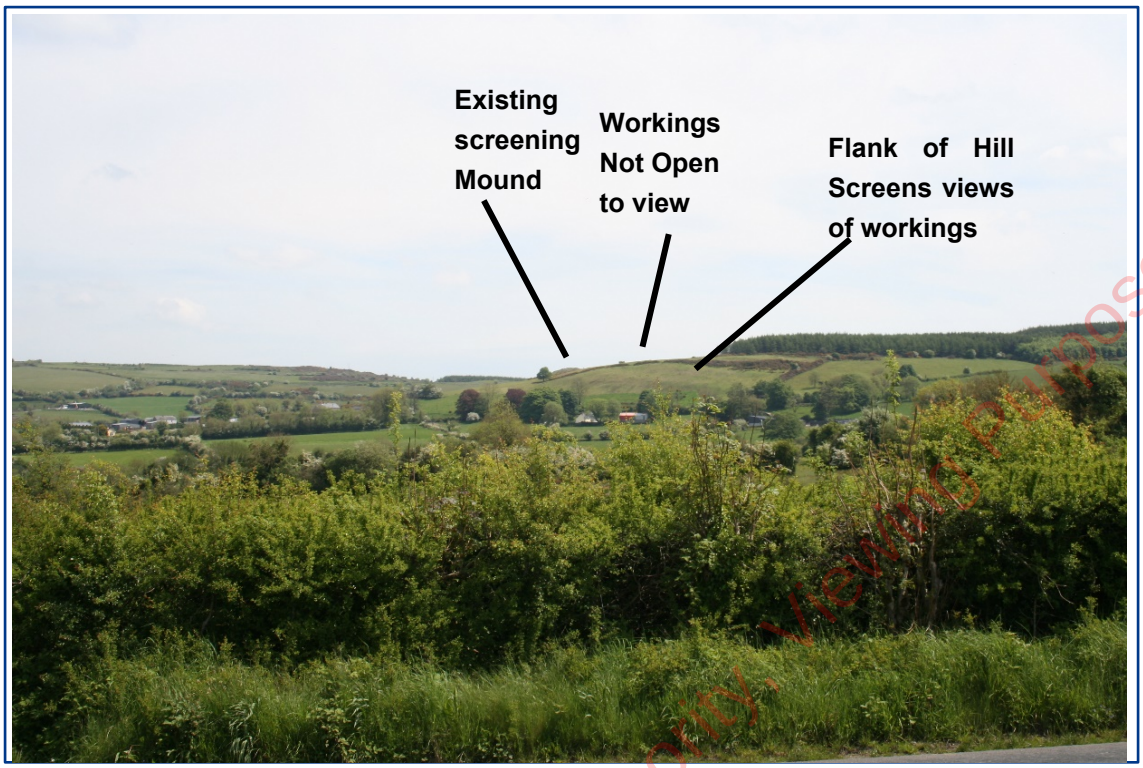



*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings not open to view. Flank of hill and screening mound screen quarry workings from this vantage

**Mitigation:** Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

## Plate 11.6 View from L7800 c. 1.1 km west of quarry




*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings not open to view. Flank of hill and screening mound screen quarry workings from this vantage

**Mitigation:** Western overburden mound slopes regraded from 1:1 to 1.5 and Height reduced by c. 4m.

## Plate 11.7 View from R430 c. 515 metres to west of existing quarry


*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Existing quarry workings not open to view.

**Mitigation:** - Lands to west of quarry workings to be retained for screening of quarry workings

- Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards

## Plate 11.8 View from L77922 c. 475 metres to northeast of existing quarry


*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings largely screened by intervening vegetation and topography. Upper quarry face open to partial views.

**Mitigation:** - Upper quarry face has been partially restored.

- Restoration of Upper Quarry face
- Encourage natural colonisation to further break up back face.
- Lands to west of quarry workings to be retained for screening of quarry workings
- Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards

## Plate 11.9 View from L77922 c. 170 metres to north of existing quarry


*Refer to Figures 11.1 & 11.2 for View Location*

**Description:** Quarry workings largely screened by intervening vegetation, screening berms and topography. Upper quarry face open to view.

**Mitigation:**

- Upper quarry face has been partially restored.
- Restoration of Upper Quarry face
- Encourage natural colonisation to further break up back face.
- Lands to west of quarry workings to be retained for screening of quarry workings
- Favourable direction of working to ensure working face is screened from outside views as quarry is developed eastwards
- Decrease height of existing stock piles so that they are not visible from vantages to the north.