

11 LANDSCAPE AND VISUAL

11.1 INTRODUCTION

This Landscape and Visual Impact Assessment (LVIA) has been prepared to accompany a consent application for the extension of an existing quarry located in the townlands of Hempstown Commons, Co. Kildare.

This EIAR has been prepared in tandem with an rEIAR to accompany an application for substitute consent for that existing quarry by the same applicant, Shillelagh Quarries Ltd ('SQL'). The further development of the quarry is proposed over areas directly adjacent to the operational lands where extraction has occurred as well as within the existing quarry.

Landscape Impact Assessment (LIA) relates to assessing effects of a Development on the landscape as a resource in its own right and is concerned with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.

Visual Impact Assessment (VIA) relates to assessing effects of a development on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.

11.1.1 STATEMENT OF AUTHORITY

This LVIA was prepared by Richard Barker, MLA, PgDip Forestry, BA Environmental, MILI. Richard has over 20 years' experience in LVIA and has worked on the Landscape and Visual Assessment for a vast range of developments throughout Ireland, including wind and solar energy, infrastructure, quarry developments, flood relief, residential and recreation projects.

11.1.2 STUDY AREA

A 5km radius study area has been selected for this impact assessment (see **Figure 11-1**). This strikes a balance between potential significant impacts to have occurred (most potential within 2km) and the need to examine a number of sensitive receptors such as settlements, amenity areas and scenic designations within the wider landscape context.



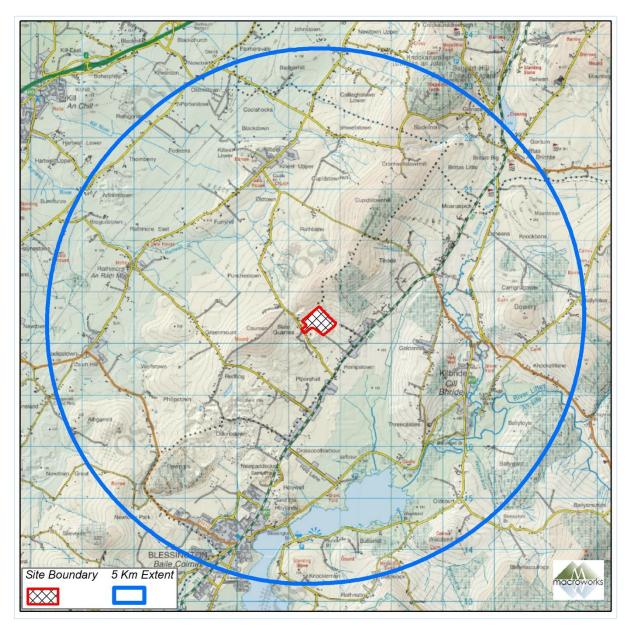


Figure 11-1 - 5km study area extents map

11.1.3 TECHNICAL SCOPE

Production of this LVIA involved:

- A desktop study to establish an appropriate study area, relevant landscape and visual designations in the Kildare County Development Plan 2023-2029, the Wicklow County Development Plan 2022-2028 and the South Dublin County Development Plan 2022-2028. The desktop study also identifies other sensitive landscape and visual receptors;
- Fieldwork to establish the landscape character of the receiving environment and to confirm and refine the set of viewpoints to be used for the EIA visual assessment stage;
- Assessment of the significance of the landscape impact of the development as a function of landscape sensitivity weighed against the magnitude of the landscape impact;



 Assessment of the significance of the visual impact of the development as a function of visual receptor sensitivity weighed against the magnitude of the visual impact. This aspect of the assessment is supported by photomontages prepared in respect of the selected viewpoints.

For more detailed information on the Landscape and Visual Impact Assessment Criteria, as well as assessment methodology used in this appraisal, please see section 11.3.

11.1.4 DESCRIPTION OF THE PROJECT

11.1.4.1 Project description summary

A full description of the proposed development is provided in Chapter 2 (Project Description) of this EIAR. A high-level summary of the proposed development is provided below.

The proposed development for further extraction of rock is to be within the existing void area with lateral extension of the void proposed in a north-easterly direction. The estimated total quantity of aggregate resource to be extracted in the life-of-quarry is c. 1,757,500 tonnes. A proposed 12 year life-of-quarry requirement is based on an average production rate of ca. 2,929 tonnes per week for rock. Dry processing of mechanically broken and blast rock onsite will comprise crushing and screening to produce aggregate materials for market.

SQL proposed to relocate the existing office container, wheel wash and water recycling tank, weighbridge to fully within the Application Site to provide space for realignment of the private access lane on SQL lands and to develop dedicated carparking facilities for the quarry operation on SQL owned lands.

The proposed car parking facilities will provide parking for HGVs and private vehicles, including guest parking.

SQL propose to decommission the existing abstraction borehole located off the access road to facilitate the road realignment on their own lands. SQL propose to undertake periodic extraction of groundwater from an abstraction borehole located on Stresslite Precast Ltd to provide water for SQL's closed-loop system wheelwash recycling tank and the mobile bowser.

There will be no direct discharge to surface or groundwater from the quarry operations. Collected waters from the base of the quarry void will continue to be pumped to the primary soakaway (which is connected to an overflow soakaway). It is proposed that the collect waters will pass through a bypass separator prior to discharge to the primary soakaway. It is proposed to extend the existing sump on the quarry floor to provide additional temporary holding capacity for collected waters, if required.

Following end-of-quarry life, a 2 year restoration period is proposed. This is detailed in a Restoration and Habitats Management Plan provided in Appendix 2B of Chapter 2 (Project Description) of this EIAR.

11.1.4.2 Proposed extension of existing quarry

The application site includes the established extraction area of the quarry and a proposed northeastern extension. The existing void is approximately 5.1 ha in area. The quarry extension design (Appendix 2A in Chapter 2 of this EIAR) provides for an extraction area of approximately 1.89 ha lateral extension of the quarry to the northeast of the existing void space (see **Figure 11-2**).





Figure 11-2 - Proposed Pit Extension Area within the lands the subject of the EIAR Legislative and Policy Context

11.1.5 LEGISLATION

The role of landscape and protection of its character through establishing planning policies and designations as part of the decision making at national through to county council level is governed by the Planning and Development Act 2000 (as amended).

The Planning and Development Act has applied the same meaning to landscape as in Article 1 of the European Landscape Convention (ELC) 2000, ratified by Ireland in 2004, which states Landscape as being an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. The Irish Government has produced the National Landscape Strategy 2014-2025 to implement the ELC which aims to implement six core objectives through decision making including recognising landscape in law, national landscape character assessment, landscape policies, increased landscape awareness, education and public participation

The general EIA legislation and guidance documents are listed in Chapter 1 (Introduction) of this EIAR.



11.1.6 RELEVANT POLICIES AND PLANS

This section sets out a review of landscape related planning policy of the county development plans of KCC and neighbouring WCC, as both local authorities fall within the extent of the study area. It includes:

- Kildare County Development Plan 2023-2029;
- Wicklow County Development Plan 2022-2028; and
- South Dublin County Development Plan 2022-2028.

11.1.6.1 Kildare County Development Plan 2023-2029

A 2004 Landscape Character Assessment of County Kildare identifies that the Landscape Character Area in which the site is located is the "Eastern Uplands." This area is designated with a "Class 3 - **High Sensitivity**" (out of an option of five sensitivity ratings, with Class 1 being 'Low Sensitivity' and Class 5 being 'Unique Sensitivity'). The sensitivity of Class 3 is described in Table 13.2 of the CDP as:

"Areas with reduced capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to prevalent sensitivity factors."

In addition, the CDP states:

"Landscape sensitivity is a measure of the ability of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values. It is determined using the following factors: slope, ridgeline, water bodies, land use and prior development."

Table 13.3 of the CDP (see **Figure 11-3** below) sets out the likely compatibility between a range of land-uses and the designated Landscape Character Areas (LCAs). According to that table, the Eastern Uplands is most compatible with "agriculture, forestry and tourism projects." For all other land-uses, including extraction (i.e. sand & gravel), it is rated as having a "**medium**" compatibility.

HEMPSTOWN QUARRY
Project No.: IE0037007.4788 | Our Ref No.: IE0037007.4788.R04.S11
Shillelagh Quarries Limited



Compatibility Key												
Most		Ì	_			_		g.	4			
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Medium		Agriculture	and Forestry	ng		Urbanisation		Infrastructure	1	EXII action	;	>
Low		[글	H P	Housing		ban		ras		2	}	Energy
Least		§	an	유		5		Inf	ú	ĭ	Ľ	5
Principal Landscape Character Areas	Sensitivity Class	Agriculture	Forestry	Rural Housing	Urban Expansion	Industrial Projects	Tourism Projects	Major Powerlines *	Sand & Gravel	Rock	Windfarm	Solar
North Western Lowlands	1											
Northern Lowlands	1											
Southern Lowlands	1											
Central Undulating Lands	1											
Western Boglands	3											
Eastern Transition	2											
Eastern Uplands	3							(
South-Eastern Uplands	2											

Figure 11-3 - Excerpt of Table 13.3 from the Kildare CDP, showing "likely compatibility between a range of land-uses and Principle Landscape Areas."

Table 13.4 from the Kildare CDP (see **Figure 11-4** below) sets out the "likely compatibility between a range of land-uses and proximity to Principal Landscape Sensitivity Factors." This is not just confined to the site itself, but proximity to within 300m of Principal Landscape Sensitivity Factors. The site of the proposed pit extension is located close to a ridgeline (as identified in **Figure 11-5** below). In relation to sand & gravel extraction, it is "**very unlikely to be compatible**" (i.e. '0' rating) if within 300m of a ridgeline; "compatible only in certain circumstances" (i.e. '2' rating) if within 300m of mixed forestry, and is "likely to be compatible with great care" (i.e. '3' rating) if within 300m of "agricultural land with natural vegetation."



	 5 - Likely to be very compatible in most circumstances. 4 - Likely to be compatible with reasonable care. 3 - Likely to be compatible with great care. 2 - Compatible only in certain circumstances. 1 - Compatible only in exceptional circumstances. 0 - Very unlikely to be compatible. 	A section 14 contraction	Agriculture and Forestry	Housing		Urbanisation		infrastructure	F. den edit	Extraction		Energy
Proximity within 300m of Principal Landscape Sensitivity Factors.		Agriculture	Forestry	Rural Housing	Urban Expansion	Industrial Projects	Tourism Projects	Major Powerlines	Sand and Gravel	Rock	Windfarm	Solar
М	ajor Rivers and Water bodies	5	5	2	2	2	3	2	1	0	1	0
С	anals	5	5	2	2	2	3	2	1	0	1	1
R	idgelines	5	5	1	1	1	1	1 (0	0	2	0
G	reen Urban Areas	4	5	2	0	0	4	3	3	3	2	2
В	road-Leaved Forestry	3	5	2	2	2	4	3	2	3	1	2
М	ixed Forestry	3	5	2	2	2	4	3	2	3	1	2
N	Natural Grasslands		2	2	1	1	4	2	1	1	2	2
М	Moors and Heathlands		2	1	0	0	1	2	1	0	2	1
1	Agricultural Land with Natural Vegetation		5	2	2	2	3	3	3	3	4	2
A		_	0	0	0	0	3	2	0	0	2	1
	eat Bogs	0	U	-								
Р	eat Bogs cenic View	5	5	2	1	1	5	1	3	0	0	2

Figure 11-4 - Excerpt of Table 13.4 from the Kildare CDP



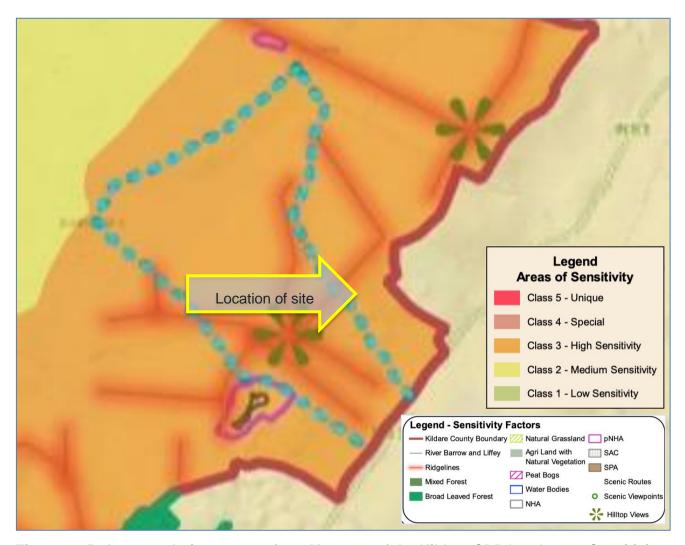


Figure 11-5 - Low-resolution excerpt from Map 13.2 of the Kildare CDP Landscape Sensitivity Map

Areas of High Amenity

Section 14.5 of the CDP states:

"In addition to Landscape Character Areas and the sensitivity of these areas to development, there are certain special landscape areas within the county, some of which overlap with sensitive landscapes. For the purposes of this Plan, these areas have been defined as Areas of High Amenity. They are classified because of their outstanding natural beauty and/or unique interest value and are generally sensitive to the impacts of development."

The site is located within the "East Kildare Uplands Area of High Amenity," which overlaps and shares the same boundaries as the aforementioned Eastern Uplands. The East Kildare Uplands Area of High Amenity is described in the CDP as:

"The Eastern Uplands are located in the east of the county and are part of the Wicklow Mountain complex. The topography rises from the lowland plains, through undulating terrain to the highest point of 379m above sea level (O.D.) at Cupidstownhill, east of Kilteel. The elevated nature of this area provides a defined skyline with scenic views over the central plains of Kildare and the



neighbouring Wicklow Mountains, which further define the skyline and the extent of visibility. The East Kildare Uplands are rural in character with a number of scenic views from elevated vantage points. The general land use on the uplands is pasture, with some tillage, quarrying and forestry.

"Along a number of roads, which cross the upper and lower slopes of the uplands, there are longdistance views towards the Kildare lowlands and the Chair of Kildare. The sloping land provides this area with its distinctive character and intensifies the visual prominence and potential adverse impact of any feature over greater distances. Slope also provides an increased potential for development to penetrate primary and secondary ridgelines when viewed from lower areas.

"In the Eastern Kildare Uplands, nearly all ridgelines are secondary when viewed from the lowland areas, as the Wicklow Mountains to the east define the skyline (i.e. form primary ridgelines). Gently undulating topography and shelter vegetation provided by conifer and woodland plantation can provide a shielding of built form. Views of the River Liffey Valley as well as of the Poulaphouca Reservoir are available from the hilltops and high points on some of the local roads."

Policies and Objectives - Landscape

Relevant Landscape, Recreation, Amenity policies and objectives include:

LR 01: Ensure that consideration of landscape sensitivity is an important factor in determining development uses. In areas of high landscape sensitivity, the design, type and the choice of location of proposed development in the landscape will also be critical considerations.

LR P1: Protect and enhance the county's landscape, by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape.

LR 02: Require a Landscape/Visual Impact Assessment to accompany proposals that are likely to significantly affect:

- Landscape Sensitivity Factors;
- A Class 4 or 5 Sensitivity Landscape (i.e. within 500m of the boundary); and
- A route or view identified in Map V1 13.3 (i.e. within 500m of the site boundary).
- All Wind Farm development applications irrespective of location, shall be required to be accompanied by a detailed Landscape/Visual Impact Assessment including a series of photomontages at locations to be agreed with the Planning Authority, including from scenic routes and views identified in Chapter 13

LR 04: Ensure that local landscape features, including historic features and buildings, hedgerows, shelter belts and stone walls, are retained, protected and enhanced where appropriate, so as to preserve the local landscape and character of an area, whilst providing for future development.

LR 07: Restrict the quarrying of sensitive sites within the Landscape Character Areas in line with Table 13.3 and Table 13.4 above and to protect and conserve the ecological, archaeological, biodiversity and visual amenity surrounding quarry sites.

LR 08 -Ensure that all quarrying activities and projects associated with the extractive industry comply with all relevant Planning and Environmental Legislation and the Guidelines for the Protection of Biodiversity within the Extractive Industry document 'Wildlife, Habitats & the Extractive Industry.



Relevant Objectives relating to Upland Character Areas including East Kildare Uplands (Area of High Amenity).

LO 030: Sensitively consider developments in the Upland Character Areas including East Kildare Uplands that have a functional and locational requirement to be situated on steep or elevated sites (e.g. reservoirs, telecommunication masts or wind energy structures) where it can be explicitly demonstrated that residual adverse visual impacts are minimised or mitigated.

LO 031: Have regard to the potential for screening vegetation when evaluating proposals for development within the Upland Character Areas including East Kildare Uplands.

Scenic Routes and Viewpoints

Scenic Routes and Viewpoints are shown on Map 13.3 of Chapter 13 (Landscape, Recreation & Amenity) of the CDP (see Figure 11-6 below). The scenic routes are itemised in Table 15-5, but there is no separate table listing identifying the Hilltop Views that are indicated in this map. The following three scenic routes, which are taken from Section 14.6 (Scenic Routes and Protected Views) of the CDP and its Appendix 4 (Scenic Routes), are the only County Kildare scenic routes in the study area of relevance to the site:

Scenic Route 12

Views west of the Kildare Plains from the Redbog Area and views towards Caureen from Rathmore crossroads to Pipershall along the L6038 road.

Scenic Route 22

Views to the north-west of the open countryside, from Kilteel Village to Rathmore Village.

Scenic Route 30

Views to and from the Ridgeline of the East Kildare Uplands and views of the Central Plains along the L6030.

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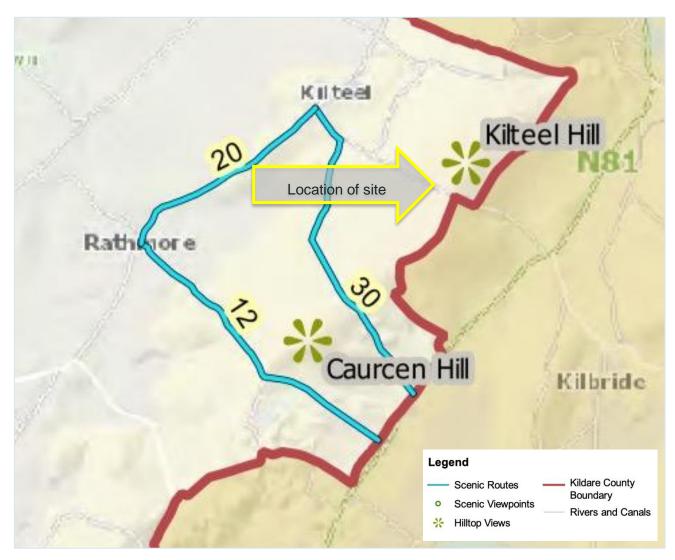


Figure 11-6 - low-resolution extract of map of designated scenic routes and viewpoints on Page 325 (Chapter 14) of the Kildare CDP. Please note: Scenic route 33 does not appear on this map, although it is listed in Appendix 4 (Scenic Routes) of the CDP

In relation to scenic routes and protected views, Section 13.5.1 of the CDP makes specific reference to 'Views to and from Hills.' The CDP states:

"As the landform of the county is generally flat, with very little variation in topography and predominantly low vegetation, extensive views can be obtained from hilltops, allowing vistas over long distances, and similarly from the lowland areas the eye is drawn to the primary and secondary ridgelines that define the skyline throughout the county. Ridgelines are conspicuous features of the natural landscape as they perform an important role as dominant landscape focal points. It is important that development does not interrupt the integrity of ridgelines. Development on steeply sloping land can be viewed over greater distances."



11.1.6.2 Wicklow County Development Plan 2022-2026

The Wicklow CDP is addressed in this section, for any protected views or scenic routes that may be of relevance to the proposed development. There are 48 designated "Views of Special Amenity value or Special Interest" listed in Chapter 10 of the CDP. However, only two are in the study area (i.e. View 33 and View 34), neither of which is orientated in the general direction of the site.



Figure 11-7 - Extract of map of designated "prospects" in the Wicklow CDP that are also in the study area

There are 66 designated "Prospects of Special Amenity value or Special Interest" listed in Chapter 17 of the CDP. It should be noted that in the case of the Wicklow CDP, "prospects" take the form of specific routes along certain roads (i.e. what some other counties designate as "scenic routes" in their respective CDPs). Only two such prospects are in the study area (please refer to **Figure 11-7**, above): Prospect 19 and Prospect 20.

Prospect 19 covers "R759 Manor Kilbride To Ballysmutton, Liffey Valley Drive." Its listed feature is identified as "Prospect of Liffey valley and mountains." However, the site of the proposed development, as well as the low County Kildare hill range upon which it is set, is located northwest of the route: the aforementioned "Liffey valley and mountains" is located south/southwest of this route.



Prospect 20 covers the "R758, L8369, L4364 & L4365, Lake Drive from the N81 at Glashina to Oldcourt." Its listed feature is identified as "Prospect of Poulaphuca." However, the proposed development is set back more than 3km from the Poulaphuca reservoir, and more than 4km from this prospect at all times.

Views and Prospects Objectives

CPO 17.37: To protect listed views and prospects from development that would either obstruct the view/prospect from the identified vantage point or form an obtrusive or incongruous feature in that view/prospect. Due regard will be paid in assessing development applications to the span and scope of the view/prospect and the location of the development within that view/prospect.

It should be noted that there are two Areas of Outstanding Natural Beauty (AONB) in the study area. These are the Mountain Uplands AONB and Poulaphuca Reservoir AONB. However, it is worth noting that both are more than 3km from the site

11.1.6.3 South Dublin County Development Plan 2022-2028

Although only the north-eastern fringe of the study area enters into County Dublin, its relevant Country Development Plan (CDP) will here be addressed for any designated/protected scenic routes, views or prospects within the study area.

Views and Prospects

Section 9.2.1 of the South Dublin CDP related to views and prospects, about which it states:

"The County contains many scenic views and prospects of places of natural beauty or interest that are located within the County and in adjoining counties. These include localised views and panoramic prospects of rural, mountain, hill, coastal and urban landscapes such as Dublin City and environs, Dublin Bay, the Liffey Valley and the Dublin and Wicklow Hills and Mountains including the Glenasmole Valley. Views of places of natural beauty or interest are not confined to those that are visible from scenic places but also from and to existing built up areas. The County also contains important prospects, those prominent landscapes or areas of special amenity value or special interest which are widely visible from the surrounding area.

There is one designated prospect within the study area: Saggart Hill (see **Figure 11-8** below). Policy NCBH15 within the CDP states that:

"It is the policy of the Council to preserve Views and Prospects and the amenities of places and features of natural beauty or interest including those located within and outside the County."

However, the only policy objective that is of relevance to the study area is:

"NCBH15 Objective 1: To protect, preserve and improve Views and Prospects of special amenity, historic or cultural value or interest including rural, river valley, mountain, hill, coastal, upland and urban views and prospects that are visible from prominent public places and to prevent development which would impede or interfere with Views and / or Prospects."



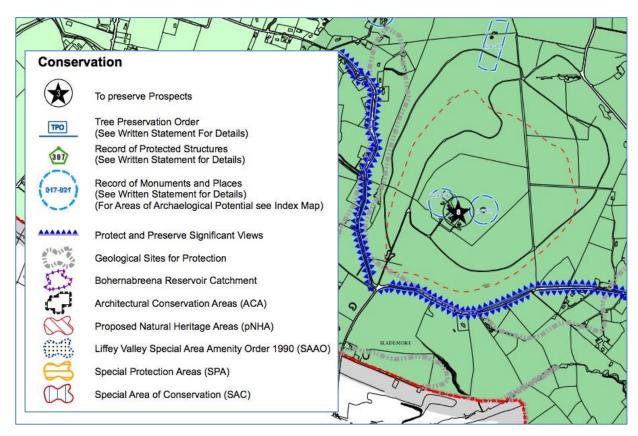


Figure 11-8 - Extract of Map 11 from the South Dublin County Development Plan, which shows the designated prospect of Saggart Hill (i.e. black star symbol, marked with the figure '8') that is within the study area

In addition, there is one designated South Dublin view within the study area, which relates to a third class road that arcs about the southern and western base of Saggart Hill (i.e. approx. 4.2km from the site).

11.1.7 RELEVANT GUIDANCE

This LVIA uses methodology as prescribed in the following guidance documents:

- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (2022); and
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment (2013).

11.2 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

This document uses methodology as prescribed in the previously mentioned GLVIA3, which follows the European Landscape Convention (ELC) definition of landscape:

"Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2000). Thus, GLVIA-2013 covers all landscapes from "high mountains and wild countryside to urban and fringe farmland (rural landscapes), marine and coastal landscapes (seascapes) and the landscapes of villages towns and cities (townscapes)" - whether protected or degraded".



11.2.1 LANDSCAPE IMPACT ASSESSMENT CRITERIA

11.2.1.1 Landscape Sensitivity

The sensitivity of the landscape to change is the degree to which a particular setting can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics. In accordance with GLVIA3, the sensitivity of a landscape receptor (Landscape Character Area or feature) is derived from combining judgements in relation to its susceptibility to change and its value. The judgement reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted. Landscape Sensitivity is classified using the following criteria set out in **Table 11.1**.

Table 11.1 - Landscape Value and Sensitivity

Sensitivity	Description
Very High	Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character.
High	Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character.
Medium	Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes, which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use.
Low	Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration.
Negligible	Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value.

11.2.1.2 Magnitude of Change – Landscape

The magnitude of change is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development and to a lesser extent the duration and reversibility of that effect. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the immediate setting that may have an effect on the landscape character. **Table 11.2** outlines criteria used to inform this judgement.



Table 11.2 - Magnitude of Change - Landscape

Criteria	Description
Very High	Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an extensive change of the landscape in terms of character, value and quality.
High	Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to a considerable change of the landscape in terms of character, value and quality.
Medium	Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to noticeable changes in landscape character, and quality.
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements that would lead to discernible changes in landscape character, and quality.
Negligible	Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable leading to no material change to landscape character, and quality.

11.2.2 VISUAL IMPACT ASSESSMENT CRITERIA

This part of the LVIA provides an assessment of how the introduction of the proposed development will affect views within the landscape. It therefore needs to consider:

- Direct impacts of the proposed development upon views through intrusion or obstruction;
- The reaction of viewers who may be affected, e.g. residents, walkers, road users; and
- The overall impact on visual amenity.

It has been deemed appropriate to structure the assessment around a series of representative viewpoint locations. All viewpoints are located within the public domain and are representative of views available from main thoroughfares and pedestrian areas within the vicinity of the proposed development. The selected viewpoints are considered to be comprehensive in communicating the variable nature of the visual effects.

When assessing the potential visual effects of the development, the sensitivity of the visual receptor is weighed against the magnitude of the visual impact to determine the significance of the visual effect. Criteria outlined below are used to guide these judgements.

11.2.2.1 Sensitivity of Visual Receptors

As with landscape sensitivity, the sensitivity of a visual receptor is categorised as Very High, High, Medium, Low, and Negligible. Unlike landscape sensitivity however, the sensitivity of visual receptors has an anthropocentric (human) basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity the viewer is engaged in and whether this heightens their awareness of the surrounding environment.



A list of the factors considered by the assessor in estimating the level of sensitivity for a particular visual receptor is outlined below to establish visual receptor sensitivity at each viewpoint location.

Susceptibility of Visual Receptors to Change

In accordance with GLVIA3, visual receptors most susceptible to changes in views and visual amenity are:

- "Residents at home:
- People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views;
- Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience;
- Communities where views contribute to the landscape setting enjoyed by residents in the area;
- Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened".
- Visual receptors that are less susceptible to changes in views and visual amenity include;
- "People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape; and
- People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life".

Values attached to Views

The value attached to a view is determined by considering the following:

- Recognised scenic value of the view (Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Developments Plans, for example, a public consultation process is required;
- Views from within highly sensitive landscape areas. These are likely to be in the form of Architectural Conservation Areas, which are incorporated within the Development Plan and therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them;
- Primary views from residential receptors. Even within a dynamic city context, views from residential properties are an important consideration in respect of residential amenity;
- Intensity of use, popularity. This relates to the number of viewers likely to experience a view on a regular basis and whether this is significant at a national or regional scale;
- Provision of vast, elevated panoramic views. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas:



- Sense of remoteness and/or tranquillity. Receptors taking in a remote and tranquil scene, which is likely to be fairly static, are likely to be more receptive to changes in the view than those taking in the view of a busy street scene, for example;
- Degree of perceived naturalness. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by distinctly manmade features;
- Presence of striking or noteworthy features. A view might be strongly valued because it contains a distinctive and memorable landscape / townscape feature such as a cathedral or castle;
- Historical, cultural and / or spiritual significance. Such attributes may be evident or sensed by receptors at certain viewing locations, which may attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings;
- Rarity or uniqueness of the view. This might include the noteworthy representativeness of a certain landscape type and considers whether the receptor could take in similar views anywhere in the broader region or the country;
- Integrity of the landscape character. This looks at the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components;
- Sense of place. This considers whether there is special sense of wholeness and harmony at the viewing location;
- Sense of awe. This considers whether the view inspires an overwhelming sense of scale or the power of nature; and
- Those locations which are deemed to satisfy many of the above criteria are likely to be of higher sensitivity, and no relative importance is inferred by the order of listing.

It is recognised that a viewer's interpretation and experience of the landscape can have preferential and subjective components. Where relevant, judgements are made on those elements of the landscape that are considered to contribute more prominently and positively to the visual landscape resource as well as those elements that contribute negatively. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular.

11.2.2.2 Magnitude of Change - Visual

The magnitude of change is again a product of the scale, extent, or degree of change that is likely to be experienced as a result of the proposed development. This is directly influenced by its 'visual presence / prominence', as experienced by visual receptors in the landscape. These terms are somewhat quantitative in nature, and essentially relate to how noticeable or 'dominant' the proposal is within a particular view. Aside from the obvious influence of scale and distance, a development's visual presence is influenced by the extent and complexity of the view, contextual movement in the landscape, the nature of its backdrop, and its relationship with other focal points or prominent features within the view. It is often, though not always, expressed using one of the following terms: Minimal; Sub-dominant; Co-dominant; Dominant; Highly dominant. Criteria used to inform judgements are provided in **Table 11.3.**



Table 11.3 - Magnitude of Change – Visual

Criteria	Description
Very High	Complete or very substantial change in view, dominant, involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements.
High	A major change in the view that is highly prominent and has a strong influence on the overall view. This may involve the substantial obstruction of existing views or a complete change in character and composition of baseline, e.g. through removal of key elements or the introduction of new features that would heavily influence key elements.
Medium	Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Low	Minor change in baseline, i.e. pre-development view - change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.
Negligible	Very slight change in baseline, i.e. pre-development view - change would be barely discernible. Composition and character of view substantially unaltered.

11.2.3 SIGNIFICANCE OF EFFECT

The significance of a landscape or visual effect is based on a balance between the sensitivity of the receptor and the magnitude of change, and is categorised as Profound, Substantial, Moderate, Slight, or Imperceptible. Intermediate judgements are also provided to enable an effect to be more accurately described where relevant. 'No Effect' may also be recorded as appropriate where the effect is so negligible it is not noteworthy.

The significance category judgement is arrived at using the Significance Matrix at **Table 11.4** as a guide. This applies the principle of significance being a function of magnitude weighed against sensitivity, but employs slightly different terminology that avoids the potentially confusing use of the term 'significant' (as recommended by GLVIA3 Statement of Clarification 1/13 (Landscape institute, 10th June 2013)).

Indicative criteria descriptions used in relation to the significance of effect category are presented at **Table 11.5**.



Table 11.4 - Significance Matrix

	Sensitivity of Receptor							
Magnitude	Very High High		Medium	Low	Negligible			
Very High	Profound	Profound- substantial	Substantial	Moderate	Slight			
High	Profound- substantial	Substantial	Substantial- moderate	Moderate-slight	Slight- imperceptible			
Medium	Substantial	Substantial- moderate	Moderate	Slight	Imperceptible			
Low	Moderate	Moderate-slight	Slight	Slight- imperceptible	Imperceptible			
Negligible	Slight	Slight- imperceptible	Imperceptible	Imperceptible	Imperceptible			

Table 11.5 - Indicative significance of effect criteria descriptions

	Landscape	Visual
Profound	There are notable changes in landscape characteristics over an extensive area or a very intensive change over a more limited area.	The view is entirely altered, obscured or affected.
Substantial	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the landscape. There are notable changes in landscape characteristics over a substantial area or an intensive change over a more limited area.	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the visual environment. The proposal affects a large proportion of the overall visual composition, or views are so affected that they form a new element in the physical landscape.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. There are minor changes over some of the area or moderate changes in a localised area.	An effect that alters the character of the visual environment in a manner that is consistent with existing and emerging trends. The proposal affects an appreciable segment of the overall visual composition, or there is an intrusion in the foreground of a view.
Slight	An effect which causes noticeable changes in the character of the landscape without affecting its sensitivities. There are minor changes over a small proportion of the area or moderate changes in a localised area or changes that are reparable over time.	An effect which causes noticeable changes in the character of the visual environment without affecting its sensitivities. The affected view forms only a small element in the overall visual composition or changes the view in a marginal manner.



	Landscape	Visual
Imperceptible	An effect capable of measurement but without noticeable consequences. There are no noticeable changes to landscape context, character or features.	An effect capable of measurement but without noticeable consequences. Although the development may be visible, it would be difficult to discern resulting in minimal change to views.

It is important that the likely effects of the proposals are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making a planning decision.

As such, whilst the significance matrix and criteria provide a useful guide, the significance of an effect is ultimately determined by the landscape specialist using professional judgement, and also in the context of occasionally using hybrid judgements to account for nuance.

Effects assessed as 'Substantial' or greater (shaded cells) are considered to be the most notable in landscape and visual terms, and may be regarded as 'Significant', albeit it is important to note that this is not a reflection on their acceptability in planning terms.

11.2.4 QUALITY OF EFFECTS

In addition to assessing the significance of landscape and visual effects, the quality of the effects is also determined. Within this LVIA, effects are described as negative/adverse, neutral, or positive/beneficial, and the following criteria has been used to guide these judgements.

- Positive/beneficial A change which improves the quality of the environment, enhancing the existing view/landscape;
- Neutral No effects or effects that are imperceptible, within normal bounds of variation e.g. will neither detract from nor enhance the existing view/landscape; and
- Negative/adverse A change which reduces the quality of the environment, detracting from the existing view/landscape.

In the case of new energy / infrastructure developments within rural and semi-rural settings, the landscape and visual change brought about by an increased scale and intensity of built form is seldom considered to be positive / beneficial. Effects in these contexts are generally considered to be adverse in nature, or neutral, where the effect has little influence on the landscape/views.

11.2.5 TIMESCALE OF EFFECTS

In accordance with EPA guidance, impacts / effects are also categorised in terms of their timescale as follows:

- Temporary Effects lasting one year or less.
- Short Term Effects lasting one to seven years.
- Medium Term Effects lasting seven to fifteen years.
- Long Term Effects lasting fifteen to sixty years.
- Permanent Effects lasting over 60 years.



11.3 BASELINE CONDITIONS

Landscape character is described in terms of 'landform and drainage', 'vegetation land use', 'centres of population and houses', 'transport routes' and 'recreation and public amenities'.

11.3.1 LANDFORM AND DRAINAGE

The landform within the study area is made up of two distinctive characters, which result in the 'sense of place' being considerably different as one moves from west to east, and north to south. This is largely derived from the hill range running northeast-southwest through the study area, lifting from approx. 260m AOD in the southwest at Athgarret, to 395m AOD at Saggart Hill/Slievethoul, in the northeast. This range principally separates County Wicklow (i.e. east of the range) from County Kildare (i.e. west of the range). West of the range, land undulates between 100m-200m AOD, and is relatively mild in terrain, punctuated by a handful of small streams.



Figure 11-9 - View of hill range, on which the site is located, from west of the range in Co. Kildare

East of the range, in County Wicklow, landform is more dramatic, varied and picturesque. The lower slopes of the Wicklow Mountains lie in the south and southeast of the study area, with the "Blessington Lakes" (i.e. Poulaphouca reservoir) occupying the large basin in between the mountains and the aforementioned hill range. The River Liffey feeds into the reservoir in the far east of the study area. In addition, the north-eastern fringe of the study area enters into County Dublin, which undulates from as low as 150m AOD to almost 400m AOD.





Figure 11-10 - Overview of Wicklow Mountains (in distance), in the east of the study area, where landform is more dramatic, varied and picturesque than in the west of the study area

11.3.2 VEGETATION AND LAND USE

While there is considerable variety of land use in the study area, pastoral farmland is, overall, dominant. Within County Kildare (i.e. in the west, north and northwest of the study area) and in County Dublin (i.e. in the northeast fringe of the study area), land use is overwhelmingly pastoral, followed by tillage, with medium-large sized fields bound by mature field boundaries, along with some small settlements/villages and some quarrying. Along the aforementioned hill range, while there is also pasture and, less so, commercial conifer plantations, a large degree of quarrying is evident. This is not just the case on the site, but for much of the aforementioned hillside for up to 3km southwest of the site, as shown in **Figure 11-11**. All of these quarries, like the site itself, are open cast. This includes an operational quarry that aligns the ridgeline of the hill range, within 200m west/northwest of the site, as well as a large, defunct/obsolete quarry that aligns the eastern side of adjacent road (i.e. within 150m southwest of the site). Factoring in their elevated and/or hilltop location, it results in these quarries being visible to several local receptors.





Figure 11-11 - Overview of hill range (in distance) along which opencast quarries are evident for over 3km



Figure 11-12 - Hempstown Quarry





Figure 11-13 - View from entrance Hempstown Quarry

The history of quarries along the aforementioned ridgeline dates back several centuries. One case in point is that 'slate quarries' are evident adjacent to the site, in Ordnance Survey maps from 1829-1842 (see **Figure 11-14** below).

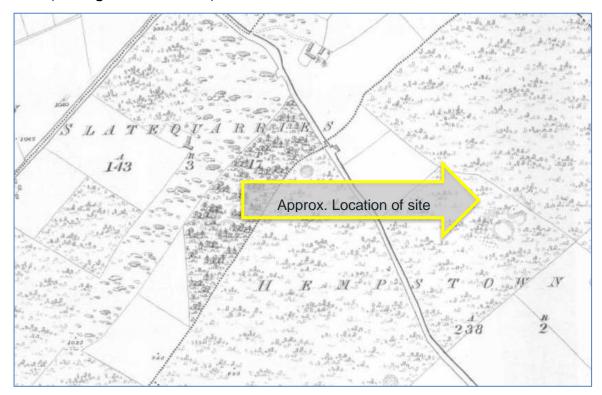


Figure 11-14 - Extract of Ordnance Survey maps from 1829-1842, with 'slate quarries' evident adjacent to the site



The existing operational quarry has been in use since the mid 1900's, while the (broader) Application Site comprises lands that are currently used for quarrying activities. The site is accessed via a privately-owned lane-way connecting to a local/third class road, the L2023. A precast concrete manufacturing facility (i.e. Stresslite Floors Ltd.) is located adjacent to the west of the Application Site, and shares a roadside entrance with Shillelagh Quarries. The boundaries of the application site mostly comprise of hedgerows and areas of scrub. There are a number of groundwater monitoring wells located within the site, as well as a number of structures relating to quarrying activities (e.g. wheelwash, weighbridge, office, staff facilities, mobile plant and associated infrastructure). The existing topography in the vicinity of the site varies in level from ca. 240m to 295m OD, with the topography rising gently to the north of the site, as it climbs towards the ridgeline of the hill.

In addition, Deerpark woodland blankets a small hill approx. 3.5km southwest of the site, while the commercial conifer plantation across Saggart Hill/Slievethoul, in County Dublin, lies approx. 4.5km northeast of the site. The Poulaphouca reservoir occupies a large portion of the study area, while the agricultural lower slopes of the Wicklow Mountains line the south-eastern edge.

11.3.3 CENTRES OF POPULATION AND HOUSES

The site is located approx. 4km northeast of Blessington in County Wicklow; a town of approx. 5,500 residents. While Blessington is the nearest settlement to the site in County Wicklow, the nearest settlements in County Kildare are the small villages of Kilteel (approx. 3km north of the site) and Rathmore (3.5km northwest of the site). The southern outskirts of the town of Naas are located within 9km west of the site (i.e. outside the study area). Because of its well-renowned natural beauty, in tandem with being less than 25km from the centre of Dublin City, even outside the aforementioned towns and small villages, this locality is relatively densely settled for an Irish rural context, with numerous residences cast across a network of regional and third class roads in Wicklow, Kildare and Dublin counties.

11.3.4 TRANSPORT ROUTES

The most notable transport route in the study area is the N81; a national road connecting the M50 (i.e. suburban Dublin) with Tullow in County Carlow. There are a couple of regional roads in the study area, but otherwise the study area is populated with a network of local/third class roads serving the local community. The site is located within 900m northwest of the N81. The Site is accessed via a privately-owned lane-way connecting to a local road, the L2023, which itself connects to the N81. There are no known rail lines in the area.





Figure 11-15 - The N81 where it enters the eastern periphery of Blessington

11.3.5 RECREATION & PUBLIC AMENITIES

The Poulaphouca reservoir is located within 3.2km south of the site, with the 'Wicklow Mountains Uplands' located within 6km (i.e. not within the study area); both being designated Areas of Outstanding Natural Beauty (AONB). In turn, the area is rich in land- and lake-based recreation (e.g. kayaking, rowing, hiking, cycling etc). In north-eastern fringe of the study area, Saggart Hill/Slievethoul contains interesting archaeological monuments, including tombs, cairns, barrows and ring forts. The 4km-long Saggart Hill Loop is a gentle walk/run around the wood, with the possibility of taking a path to the summit, which offers views out over the plains of Kildare. In addition, the publicly accessible Deerpark woodland, which blankets an adjacent small hill, is located approx. 3.5km southwest of the site. Within Blessington town, there are numerous sports clubs, including GAA and soccer clubs.





Figure 11-16 - The Poulaphouca reservoir is located within 3.2km south of the site

11.4 SELECTION OF SENSITIVE VISUAL RECEPTORS

The selection of visual receptors is based on the process outlined in the methodology section and relies on representation of a range of receptors types, distance and viewing angles for a robust assessment. More sensitive visual receptors include those involved in recreation, or at amenity areas where there is a focus on a scenic landscape, or residents with views of scenic quality. Less sensitive receptors would include those driving at higher speeds or those engaged in activities where there is not a focus on the landscape and where the views are not considered of high quality.

A previous 2020 application identified a total of nine viewpoints that had been selected for original LVIA, and a further seven that had been introduced at Request for Further Information (RFI) stage. Together these are considered to cover an appropriately broad range of views including those from nearby residential properties, elevated sections of road and designated county Kildare/Wicklow scenic routes and views within the study area. All of these viewpoints were revisited during the field study in November 2024 and reviewed for their suitability for reuse in this visual assessment, i.e. to determine if any views had become obscured by vegetation or structures since 2020 or indeed, opened up by the removal of vegetation. All but one viewpoint was found suitable with no adjustments needed to their orientation or location. In the case of VP7, roadside gorse had grown up to obscure the view but a nearby block of forestry had been felled to revel a more open view. Consequently, the new VP7 is around 100m to the northeast of the original location, but the relevant distant view context is very similar to the original location.

The selected viewpoints are listed in **Table 11.6** and mapped in **Figure 11-17** below. The potential impact of the proposed development upon these receptors is assessed in the visual assessment section.



Table 11.6 - Selected Viewpoints for Visual Impact Assessment

VRP No.	Location	Direction of view
VP1	Local road L2023 accessing the site	E/NE
VP2	N81 at Hempstown townland	NW
VP3	N81 near Pipershall townland	N
VP4	Rundle Bridge, Poulaphouca Reservoir	N
VP5	Elevated local road at Kilbride townland	NW
VP6	R759 at Knockatillane townland	NW
VP7	Local road at Blackrock townland	N
VP8	Ring road along northern periphery of Blessington Town	NE
VP9	Northern entry to Blessington Town along N81	N
RFI VP1	Scenic Route No. 33 approx. 950m south of site	N
RFI VP2	Scenic Route No. 33 approx. 630m south of site	N/NE
RFI VP3	Scenic Route No. 33 approx. 1.8km northwest of site	S/SE
RFI VP4	Scenic Route No. 33 approx. 1.3km northwest of site	S/SE
RFI VP5	Scenic Route No. 33 approx. 950m northwest of site	SE
RFI VP6	Scenic Route No. 33 approx. 645m northwest of site	SE
RFI VP7	Scenic Route No. 33 approx. 530m northwest of site	SE



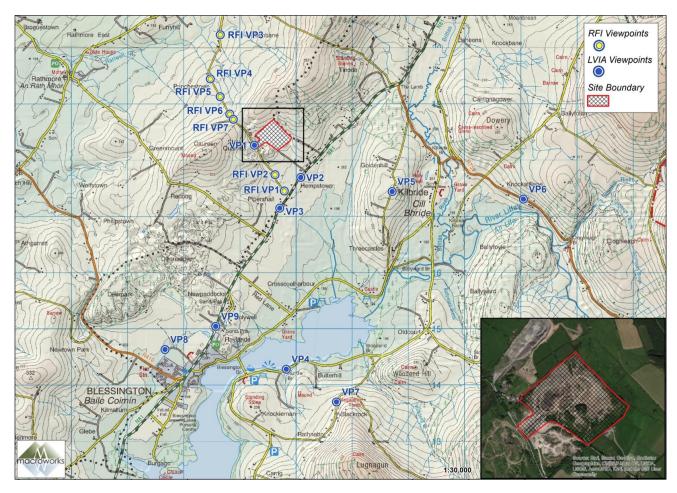


Figure 11-17 - Selected Viewpoints for Visual Impact Assessment

11.5 CHARACTERISTICS OF THE DEVELOPMENT

The characteristics of the development that are of most relevance to the landscape and visual effects are the extension of the quarry void to the northeast and the deposition of stockpiles of overburden. Also of some relevance is the heavy vehicle movements to and from the quarry and also the movement of workers and machinery within the quarry site.

11.6 POTENTIAL EFFECTS

11.6.1 LANDSCAPE EFFECTS

11.6.1.1 Landscape Sensitivity

Reflective of the aforementioned diversity of landform, land use and settlement in the study area, the landscape value and sensitivity is notably diverse within the study area; a diversity that is chiefly influenced by the aforementioned hill range that broadly separates counties Wicklow and Kildare.

If concentrating on the Poulaphouca Reservoir and foothills of the Wicklow Mountains, and a small part of south-western Co. Dublin, then the broader study area is one that favours naturalistic or scenic values. Within County Wicklow, and east of the aforementioned N81 national road, the landscape is picturesque and more sensitive. This is reflective of the presence of two Areas of



Outstanding Natural Beauty (the Mountain Uplands AONB and the Poulaphouca Reservoir AONB), as well as a Special Protection Area and two Proposed Natural Heritage areas.

West of the aforementioned hill range (i.e. within County Kildare, and a small part of south-western County Dublin), land use is governed by intensive pasture management. It is a robust working landscape with values that tend to favour a rural based economy, and with more limited naturalistic or scenic values than in Co. Wicklow. Close to the centre of the study area, there is also the town of Blessington 4km southwest of the site.

Then there is the landscape sensitivity of the aforementioned hill range that broadly separates counties Wicklow and Kildare: the hill range in which the site is set. According to the aforementioned Kildare County Landscape Character Assessment, this area is deemed to have a 'High Sensitivity,' by virtue of it being within the "Eastern Uplands" Landscape Character Area. However, the Kildare County Landscape Character Assessment was completed in 2004, while the "Eastern Uplands" Landscape Character Area stretch northeast-southwest for a length of more than 30km. Such broad geographical brushstrokes do not and cannot take into account more localised and pertinent factors and conditions that arise within the study area. It is a landscape character area principally derived from that of elevation, rather than that of condition, quality, rarity or appearance.

In the case of the site of the proposed development, the localised context is a much-quarried ridgeline that engenders a wider landscape character of centuries-old, much-worked extractive industries in the central study area. The landscape of the proposed pit extension is characterised and defined by the existing pit (i.e. a distinctly modified landform and land use, created as a direct result of the existing quarry). Within the Application Site Boundary, and south of the existing quarry and proposed pit extension, the landscape is characterised by quarrying spoil, temporary storage/stockpiling of industrial/extractive elements, a small and dilapidated warehouse/barn-like structure, as well as recolonizing vegetation across unmanaged land. While there is one private residence, as well as evidence of mature native vegetation, in this segment the southern half of the Application Site, such elements are in a minority, and the landscape integrity/condition is principally defined by degradation.

There are multiple open cast quarries along this hill range, some of which are in the direct vicinity of the site. However, there is also pastoral farming, to the northeast, east and southeast of the site, as well as a commercial conifer plantation within 350m east of the site. In their CDP, Kildare County Council also states that, "within each of these [landscape character] areas there can be a wide variety of local conditions that can significantly increase or decrease sensitivity".

In addition, the site is set within an area that retains certain characteristics that will assist in absorbing and integrating the proposed quarry extension into its documented landscape character. These include:

- The adjacent existing quarries;
- The mature field boundaries in the fields adjacent to and in the vicinity of the site; and
- The historic precedent/influence of other quarries in the central study area, which have contributed to the character and value of this landscape for generations.

In accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA - 2013), landscape sensitivity/susceptibility is relative to the nature of the development proposed. In this instance, the site in question is that of a quarry/quarry periphery, within a central study area that



contains numerous such quarries, as well as predominantly pastoral farmland, in a robust, multi-faceted and deeply diverse working landscape.

On the basis of the reasons outlined above, the sensitivity of the site and its immediate surrounds is still deemed to be **Low**, the central study area **Medium** and the wider study are to the east of the N81, **High**.

11.6.1.2 Landscape Impacts – Site and Immediate Context (<1km)

Operational Phase 1

Operational Phase 1 activity will largely consist of preparation for the quarry extension through the relocation of the office container, weighbridge, wheel wash and tank and development of carparks with 0.75m high safety berm on perimeter will be undertaken at the start of this phase. Existing temporary stockpiles on the south and south west of the quarry void will be relocated to facilitate the construction of the proposed layout and provide access to the existing internal haul route parallel to the south east face, as required. The existing mobile screen and mobile crusher will be relocated from the south if the south-east quarry face to the north east of same face. These small scale changes predominantly within the enclosed quarry pit will have little impact on the physical contour and landcover of the site and will not be particularly evident from beyond the site boundary. Consequently, the landscape impact is deemed to be of a **Negligible** magnitude, a **Short-term** duration and of a **Neutral** quality.

Operational Phase 2

During the Operational Phase 2 there will be a greater impact on the landform and land cover within the site as the quarry extension to the northeast begins. This will consist of phased stripping of topsoil and overburden over 25 m sections will be carried out in the extension area in a north-west direction from the south-east to using approximately 25 m sections at a time. Topsoil and overburden stripped from the proposed extraction area will be stockpiled against the northwest quarry wall in engineered benches. Some stripped material will be used to construct safety berms in appropriate locations around the site. Stripped topsoil will be stockpiled and retained for final landscaping works during the restoration phase. Progressive extraction of the rock resource within the existing quarry and within the extension area will be carried out in accordance with the quarry design. This phase will result in the removal of low value scrub material during the stripping works and a progressive increase in the scale and extent of the quarry void within the site. Although this represents a marked change to the current site topography and larger void within the landscape of the local area, it is within a site where such activity has been occurring for decades and is a relatively modest extension to the extent of the existing pit. In this context, it is considered to be much less of an impact on the localised landscape character than if it occurred at a greenfield site. Furthermore, the excavation will occur progressively such that it represents a slowly incremental change to the site over the Medium-term rather than an abrupt change.

The movement of machinery within the site and heavy vehicle movements to and from the site will continue for a longer period than they would if the quarry is not extended. This represents a Medium-term extension of such activity, which will be of a similar intensity to current site and local area activity.



On balance of the above reasons, the magnitude of landscape impact is deemed to be of a Medium magnitude, with a Medium-term duration and a Negative quality. The significance of Operational Phase 2 effects is therefore **Slight / Medium-term / Negative**, which is not considered to be a significant effect in EIA terms.

The Restoration Phase

The Restoration Phase will be completed within 2 years following the completion of the Phase 2 extraction work, will utilise stockpiled overburden material to lessen the steep grades within the site for safety and aesthetic purposes. There will also be restorative planting of native species within an around the quarry void. All plant, equipment and temporary structures shall be decommissioned and removed from the Site. This **Short-term** activity will have a **Low** magnitude of impact in terms of the nature and intensity of the works as they occur and the value of this impact is deemed to be marginally negative (**Neutral-Negative**) as it still represents site activity and movement of material. However, upon completion of the restoration phase works, the value of the impact is deemed to be **Positive** with continuing improvement as native planting matures.

The significance of Operational Phase 2 effects is deemed to be **Slight-imperceptible / Short-term / Positive**, which is not considered to be a significant effect in EIA terms.

11.6.1.3 Landscape Impacts - Wider Study Area (1-5km)

In this instance, landscape effects on the wider study area will only relate to change in landscape character rather than physical changes to landscape fabric. These will be most evident during the Operation Phase 2 extraction works as the quarry void extends to the northeast of the existing pit. Indeed. Operation Phase 1 preparatory works will not have a discernible impact on the wider study area.

The impact of the incremental quarry extension during operational Phase 2 will result from an extended quarry void footprint that alters both the landcover and landform of the site. This forms part of an increased footprint of quarry void within the context of both the site and the surrounding area where other quarries also exist. Thus, it will represent a subtle and characteristic change that is consistent with current land use and activity within this area. The extension of the quarry pit and resulting processing and removing of the worked material off site is not dissimilar to the level /type of activity that has occurred across these lands for decades. The extended quarry is likely to be only marginally more noticeable within the outer reaches of the study area than the current quarry void, which itself is a modest scale feature in the context of a rich and varied landscape of productive land uses that surround the site.

For the reasons outlined above, the Magnitude of landscape character change is deemed to be Low-negligible. In terms of duration and quality, this effect would be Medium-term and Negative respectively. Given the higher sensitivity of the landscape within the wider study area than that surrounding the site, the significance of Operational Phase 2 effects will therefore be no greater than **Slight / Medium-term / Negative**, which is not considered to be a significant effect in EIA terms.

It is likely that landscape effects will reduce within the wider study area following the completion of the Restoration Phase as excavated faces are regraded and proposed native planting becomes established.



11.6.2 VISUAL EFFECTS

As described previously, in a 2020 application, the LVIA included an assessment of visual effects that was based on nine representative viewpoints and a subsequent seven viewpoints which were requested at RFI stage. Due to the input from the Planning Authority at that RFI stage these locations are considered to represent a robust set of representative viewpoints for the currently proposed quarry extension. Recapture of photography at all of these viewpoints took place in November 2024 and most had a virtually unchanged context. Subtle adjustments of location were required in a couple of instances to account for vegetation growth over the intervening period. Five of the RFI views were presented directly within RFI stage LVIA update report as there were no potential views of the quarry to depict and this remains the case (updated photography at those locations is included herein).

11.6.2.1 Visual Receptor Sensitivity

Key differentials in terms of visual receptor sensitivity relate to the occupation of the visual receptor, the elevation of the visual receptor, and the distance at which views are obtained. Static residential receptors are considered generally more susceptible to changes in views over those where views are experienced transiently by those travelling through the landscape.

There are designated scenic views and scenic routes from both the Kildare and Wicklow County Development Plans that are contained within the study area and the sensitivity of views from these designations will generally be higher than from non-designated locations. More typical rural views, views from within the busy settlement of Blessington and views that are already influenced by the existing quarry will tend to be of lower sensitivity (Medium-low to Low). Sensitivity judgements based on the factors outlined in methodology section 11.3.2.1 will be made for each of the selected representative viewpoints in assessment **Table 11.7** and these are consistent with the sensitivity judgement for the same locations in the 2020 application.

11.6.2.2 Visual Impact Assessment at Selected Representative Viewpoints

An assessment of visual effects is contained in **Table 11.7** below.

Table 11.7 - Comparative Visual Impact Assessment across Substitute consent period

VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
VP1	Local road L2023 accessing the site. Represents a designated scenic route and local community viewers. In terms of context, this local/third class road ascends from the N81, for approx. 900m, where it reaches the site entrance. However, despite its scenic route designation, the inherent visual amenity available at this particular location is not that typically associated with such designations.	Medium- low	Approx. 140m from this location, the quarry face will extend eastwards away from the viewer creating a marginally greater sense of scale for the quarry void. The new quarry faces will be visually "cleaner," with marginally less visual clutter and more coherencies. With the former spoil heaps and stockpiles now removed from the skyline, the skyline	Imperceptible Neutral

Shillelagh Quarries Limited



VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
	The view through the site entrance is that which is typical of many quarries and/or concrete manufacturing facilities about the county and country. The foreground of the site is occupied by a large industrial building, crane and storage yard. Beyond this, the tall, quarry faces of are clearly visible, fragmented into assorted benches. The quarry face creates a deep 'bowl-like' effect, curtailing all views beyond it. Along the skyline, the rough, uneven topography of quarry spoil heaps and stockpiles zigzag in an unnatural fashion.		itself will be marginally lower, allowing for fractionally more views of the distant conifer plantation beyond. Notwithstanding that some change is discernible, in the context of the existing quarry view, the visual impact magnitude is deemed to be Negligible	
VP2	N81 at Hempstown townland. Represents a major route and Local Community views. The N81 is a busy National Road connecting Blessington with Dublin City. It is located approx. 900m southeast/south of the Application Site, and has numerous residences to either side of it. Views in the direction of the site are largely screened or obscured by tall roadside vegetation. In this instance, a view in the direction of the site is allowed through a residential property entrance.	Medium- low	Owing to intervening vegetation, as well as quarry spoil heaps and stockpiles immediately south/downhill of the proposed pit extension, no views of the proposed development can be attained from this location. Consequently, the magnitude of visual impact is deemed Negligible .	Imperceptible Neutral
VP3	N81 near Pipershall townland. Represents a major route and Local Community views. The N81 is a busy National Road connecting Blessington with Dublin City. It is located approx. 900m southeast/south of the Application Site, and has numerous residences to either side of it. Views in the direction of the site are largely screened or obscured by tall roadside vegetation. In this untypical instance, a view in the direction of the site is permitted by a roadside, concrete post and rail fence (i.e. no roadside hedgerow/trees).	Medium- low	Owing to intervening vegetation, as well as quarry spoil heaps and stockpiles immediately south/downhill of the proposed pit extension, no views of the proposed development can be attained from this location. Consequently, the magnitude of visual impact is deemed Negligible .	Imperceptible Neutral



VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
VP4	Rundle Bridge, Poulaphouca Reservoir. Represents a Designated view (Lookout point indicated on current OS Maps), Local community views and an Amenity and heritage feature. The context of this view is a bridge over the small Rundle stream, where it enters the southern side of the Poulaphouca Reservoir/Blessington Lakes. This bridge is close to a similar location that is also a lookout point indicated on current Ordnance Survey Maps, with the indicated view being in a general northeast to northwest arc (i.e. in the direction of the site). The foreground of this scene is occupied by the reservoir/lake. Across the lake, aside from some woodland and some stately, lakeshore residences, the low hill range on which the site is located gently ascends to the skyline.	Medium	At this distance, it will be highly unlikely that even the stationary and studied observer will be able to discern the relatively minor alteration to landform and appearance within the distant site. Even if the pit extension is noticed, its landscape will remain, as before, a distant extractive land use. Thus, it has no material consequence for the inherent visual amenity from this location and the magnitude of impact is deemed Negligible .	Imperceptible Neutral
VP5	Elevated local road at Kilbride townland. Represents Local Community Views. The context of the location is a small hill that lifts from about 200m AOD near the northern end of the Poulaphouca Reservoir, to just over 200m AOD at its summit. A small third class road aligns much of the hilltop, with a few residences built along it. Although largely enclosed by a roadside embankment and low vegetation in most places, the road offers views across the hill range on which the site is located. A foreground pasture behind a wire sheep-netting fence anchors the foreground of this scene. Beyond this field, landform drops for the more than 1km before rising again into sight. Along the distant hill range, behind prevalent amounts of pastures and conifer plantations, a large degree of open cast quarrying is evident. This does not just pertain	Medium- low	At over 2km distance, the proposed pit extension will be challenging to discern, in the context of a larger quarried site, set within a hillscape context of similar operational, open cast quarries. The proposed pit extension will not be patent, let alone conspicuous, as it is situated well below the skyline, its quarry faces will be largely obscured by landform immediately downhill from it. As a result of these factors, it is deemed that the magnitude of visual impact is imperceptible	Slight- imperceptible Neutral- Negative Medium-term

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VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
	to the Application site, but the vicinity surrounding it. Owing to the lack of any vegetation across these quarries, they appear recent and operational. Their presence mainly takes the form of quarry faces, spoil heaps and soil/rock-coloured land use. One of these, uphill of the Application Site, transcends the skyline.			
VP6	R759 at Knockatillane townland. Represents a Designated view, Local community views and a Major Route. The context of this view is that of a Wicklow county Council "Prospect of Special Amenity value or Special Interest" (i.e. what some other counties designate as "scenic routes" in their respective CDPs). Sections of this regional road, R759, cover Prospect 19, although its listed features are not in the direction of the site This location is on the eastern periphery of the study area, but also represents the best opportunity for views from this "prospect" in the direction of the site.	Medium	Owing primarily to intervening vegetation over the course of more than 4km, no aspect or element of the proposed development can be attained from this location. Consequently, the magnitude of visual impact is deemed to be Negligible.	Imperceptible Neutral
VP7	Local road at Blackrock townland. Represents a Designated view and Local Community views. The context of this view is from Wicklow County Council designated 'Prospect 20' (i.e. scenic route), that unveils picturesque views of its listed features of Poulaphuca Reservoir/ Blessington Lakes. In this view, the low hillscape on which the site is set appears as a low sweeping horizon above the lakes/reservoir. At almost 5km distance, little detail can be determined about land use upon the hillscape, aside from clumps of pasture and woodland/forestry. An irregular, soil-coloured area along the hillscape infers the presence of open cast quarrying.	Medium	It will be challenging to discern the relatively minor alteration to landform and appearance within the site, at this distance of almost 5km, and with such a range of visually compelling elements (e.g. the lakes) between this location and the site. Even if the proposed pit is identified from this location, it is very unlikely to make any material impression upon visual amenity. Thus, the magnitude of visual impact is deemed to be Negligible.	Imperceptible Neutral



VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
VP8	Ring road along northern periphery of Blessington Town. Represents a Centre of Population. This location serves as a de facto 'ring road' across the northern periphery of Blessington town. This area of the town has experienced considerable expansion, construction and settlement in the last 20 years, and is characterised by several relatively recent housing developments. This location offers the clearest potential for views in the direction of the site from Blessington. The field in the foreground once formed part of the Blessington Demesne, and is hitherto free of any residential development. In the distance, evidence of open cast quarrying can be discerned on the skyline, but not from the site in question.	Low	Owing primarily to intervening landform over the course of 4km, no aspect or element of the proposed development can be attained from this location. Consequently, the magnitude of visual impact is deemed to be Negligible	Imperceptible Neutral
VP9	Northern entry to Blessington Town along N81. Represents a Centre of Population and a Major Route. This location marks the northern approach into Blessington Town along the N81. Road users and/or pedestrians heading north from the town (e.g. in the direction of Dublin) travel in the general direction of the site. However, tall/mature roadside vegetation tends to curtail most views from this road.	Low	Owing to tall roadside vegetation, in tandem with other intervening vegetation over the course of more than 3km, no aspect or element of the proposed development can be attained from this location. Consequently, the magnitude of visual impact is deemed to be Negligible	Imperceptible Neutral
RFI VP1	Scenic Route No. 33 approx. 950m south of site. Represents a designated scenic route and local community viewers. In terms of context, this local/third class road ascends from the N81, for approx. 900m, where it reaches the site entrance. It is a road that also forms part of the Kildare County Council designated Scenic Route 33, from which includes, as Section 14.9 of this report states, "Views to and	Medium	There will be no visibility of the proposed quarry extension from here due to intervening land form and vegetation. Consequently, the magnitude of visual impact is Negligible .	Imperceptible Neutral

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VRP No.	Visual Receptor Context	Visual Receptor Sensitivity	Visual Change from proposed development	Significance of Visual effect
	from the Ridgeline on the East Kildare Uplands." However, despite its scenic route designation, the inherent visual amenity available at this particular location is limited by the degree of enclosure from mature vegetation in the immediate vicinity. Nonetheless, some sections of the skyline ridge and spoil heaps can be discerned through the winter branches on intervening trees.			
RFI VP2	Scenic Route No. 33 approx. 630m south of site. Represents a designated scenic route and local community viewers. In terms of context, this local/third class road is the same as that for RFI VP1. This location is situated approx. 450m off the N81, between that busy national road and the site entrance. Aside from use by the local community, during the working week it is a segment of road that is heavily frequented by Heavy Goods Vehicles accessing/returning from the existing quarry at Shillelagh. There is a glimpse of the upper profile of spoil heaps that line the southern side of the quarry.	Medium	There will be no visibility of the proposed quarry extension from here due to intervening land form and vegetation. Consequently, the magnitude of visual impact is Negligible .	None

For the remaining 5 No. viewpoints (i.e. RFI VP 3-7) are all contained on the north-western (opposite) side of the ridge from the proposed development where potential visibility is precluded by landform. Thus, there is no potential for any visual impact from any of these locations, as a result of the proposed development. Be that as it may, contextual photographs for each of these five locations are supplied herewith.





Figure 11-18 - Viewpoint RFI 3 (recaptured 2024)



Figure 11-19 - Viewpoint RFI 4 (recaptured 2024)





Figure 11-20 - Viewpoint RFI 5 (recaptured 2024)



Figure 11-21 - Viewpoint RFI 6 (recaptured 2024)





Figure 11-22 - Viewpoint RFI 7 (recaptured 2024)

As can be seen from the assessments contained in **Table 11.7**, even when there might be discernible changes to the quarry face or stockpile configuration, none of the views that were used for the 2020 application have materially changed. Consequently, there has been no increase or decrease in visual impacts over the substitute consent period. Such effects are therefore, **Imperceptible**, **Short term** and of a **Neutral quality**. This is not a significant effect in EIA terms.

11.7 MITIGATION MEASURES

Given the context and nature of the proposed development and the low order of both landscape and visual impacts that are assessed to occur even without mitigation, it is not considered necessary to propose specific mitigation to ameliorate landscape and visual effects. Nonetheless, it is acknowledged that the restoration plan will serve to soften the appearance of the quarry, make it safe and promote biodiversity enhancement within the immediate context of the quarry. This has been accounted for in the landscape impact section, which breaks down the development into its various phases. However, the restoration plan has not been accounted for, in terms of its reductive potential, in relation to the visual impact assessment, which otherwise focusses on worst-case effects at the end of the Operation Phase 2 extraction works (i.e. prior to restoration).

11.8 RESIDUAL EFFECTS

In this instance there are no specific mitigation measures relating to landscape and visual effects deemed to be required, so residual effects will be the same as assessed in Section 11.7.

11.9 CUMULATIVE EFFECTS

The cumulative effects associated with other permitted / under construction third-party developments have been considered in Chapter 15 of this EIAR. Cumulative effects are considered to be **Not Significant**.



11.10 MONITORING

In this instance there are no specific mitigation measures relating to landscape and visual effects proposed, so on-going monitoring is not required.

11.11 DIFFICULTIES ENCOUNTERED

No particular difficulties were encountered in the course of undertaking this landscape and visual impact assessment

11.12 SUMMARY AND CONCLUSIONS

In terms of landscape impacts, the site displays a robust set of features that will help the proposed quarry extension to assimilate, absorb and integrate itself into the surrounding landscape of the central study area and its documented landscape character. This much-modified and ever-evolving landscape where quarrying sits comfortably alongside pasture, tillage, commercial forestry. The proposed quarry extension would merely represent a minor increase in the footprint of that scenario within the context of an existing quarry operation of a larger scale. In spite of this, it cannot be ignored that the application site is located within a Kildare County Landscape character Area that is designated as having a "high sensitivity." Furthermore, the proposed quarry will result in a distinct and permanent alteration to the topography and drainage of the site.

On balance, the significance of landscape impact is not considered to be any greater than **Slight** within the application site and its immediate surrounds (<100m), and reducing thereafter with increasing distance and broader context where limited visibility of both the existing quarry pit and its proposed extension afford little change to the prevailing landscape character.

In terms of **visual impacts**, it ought to be remembered that any quarrying operation has the potential to be a conspicuous and severe element in any landscape: while most people will perceive it as an economic gain for the local community, others can concurrently perceive it as devaluing, degrading or scaring that landscape. In balance, such perspectives are influenced by the precedence, scale, shape and duration of the proposal, and how it may complement or contrast with its immediate surroundings, as well as the impact that proximity of the quarry to local/neighbouring properties or roads can be a major determinant in shaping such perspectives.

Weighed against that is the inherent visual absorption of the central study area, largely made possible by mature, tree-lined hedgerows, forestry and the same undulating terrain that makes quarrying such a popular pursuit. Furthermore, the site of the proposed pit extension is largely obscured from most receptors by landform within and around the site itself. In addition, where any aspect of the proposed extension can be discerned, it is in the context of the existing quarry and other opencast quarries in the vicinity.

Thus, the range of potential visible impacts that are likely to be generated as a result of the proposed development is notably low. An analysis of eleven Viewshed Reference Points and five illustrative views within the study area varied simply from imperceptible (at all but one location), to Slight-imperceptible from VP5, which is located on a lightly populated farmed ridge the opposes the hill range that hosts the site. This is the only location to afford relatively close and clear views towards the site at an elevation great enough to see the proposed quarry pit extension. Overall, this is a distinctively low range of likely to visual impacts for most proposed development; even more so for an open cast quarry extension upon an evident hillside.



Given the localised and low-order landscape and visual impacts that were assessed for the proposed development in its own right, the potential for notable cumulative effects is also deemed to be low.

Based on the assessment of landscape effects, visual effects and cumulative effects contained herein, it is considered that the proposed Hempstown Quarry extension will not give rise to any significant effects in EIA terms.

11.13 REFERENCES

- Kildare County Council (2022) Kildare County Development Plans 2022-2028 & 2016-2022.
- Wicklow County Council (2022) Wicklow County Development Plans 2022-2028 & 2016-2022.
- Department of the Environment, Heritage and Local Government (April 2004) Quarries and Ancillary Activities - Guidelines for Planning Authorities. Dublin: https://www.gov.ie/en/publication/a61d3-quarries-and-ancillary-activities/.
- Environmental Protection Agency (EPA) (2022). Guidelines on the Information to be Contained in Environmental Impact Reports (EIAR). Environmental Protection Agency, Wexford. https://www.epa.ie/publications/monitoring--assessment/assessment/guidelines-on-theinformation-to-be-contained-in-environmental-impact-assessment-reports-eiar.php.
- Landscape Institute and the Institute of Environmental Management and Assessment (2013)
 Guidelines for Landscape and Visual Impact Assessment, 3rd edition, London: Routledge.
- Landscape Institute (2024) GLVIA3 Statements of clarification, London: Landscape Institute.
- Landscape Institute (2019) Visualisation of development, London: Landscape Institute.

HEMPSTOWN QUARRY
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Shillelagh Quarries Limited

Appendix 11A

PHOTOMONTAGES





macroworks

LVIA PHOTOMONTAGES

Hempstown Quarry Extension

This book contains imagery for the viewpoints chosen for the LVIA study and the RFI

February 2025



INDEX

RFI Viewpoints:

RFI Viewpoint 1 - Existing View + Montage View

RFI Viewpoint 2 - Existing View + Montage View

LVIA Viewpoints:

Viewpoint 1 - Existing View + Montage View

Viewpoint 2 - Existing View + Montage View **Viewpoint 5** - Existing View + Montage View

Viewpoint 3 - Existing View + Montage View

Viewpoint 6 - Existing View + Montage View

Viewpoint 4 - Existing View + Montage View

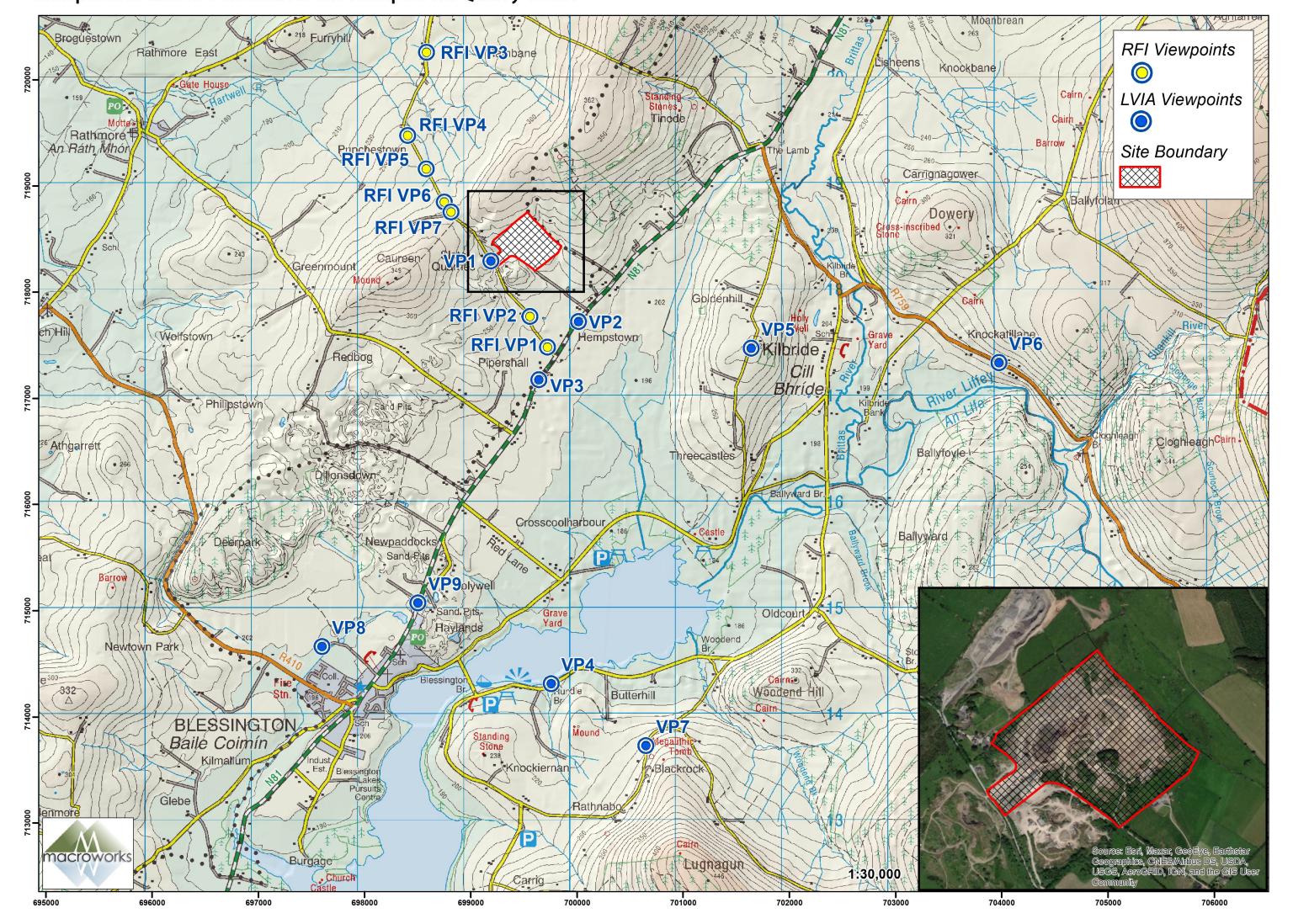
Viewpoint 7 - Existing View + Montage View

Viewpoint 8 - Existing View + Montage View

Viewpoint 9 - Existing View + Montage View

Please note: The Viewpoint Map below illustrates both the original LVIA viewpoints (i.e. VP1 - VP9), as well as those selected for this LVIA RFI Update (i.e. RFI VP1 - RFI VP7). However, as only two of the RFI viewpoints (i.e. RFI VP1 & RFI VP2) experience theoretical visibility of the proposed development, photomontages have only been generated from these locations. For the remaining 5 No. viewpoints (i.e. RFI VP 3 - RFI VP7), contextual photographs are supplied in Section 1.8.6 of the LVIA RFI Update.

Viewpoint locations selected for the Hempstown Quarry rLVIA







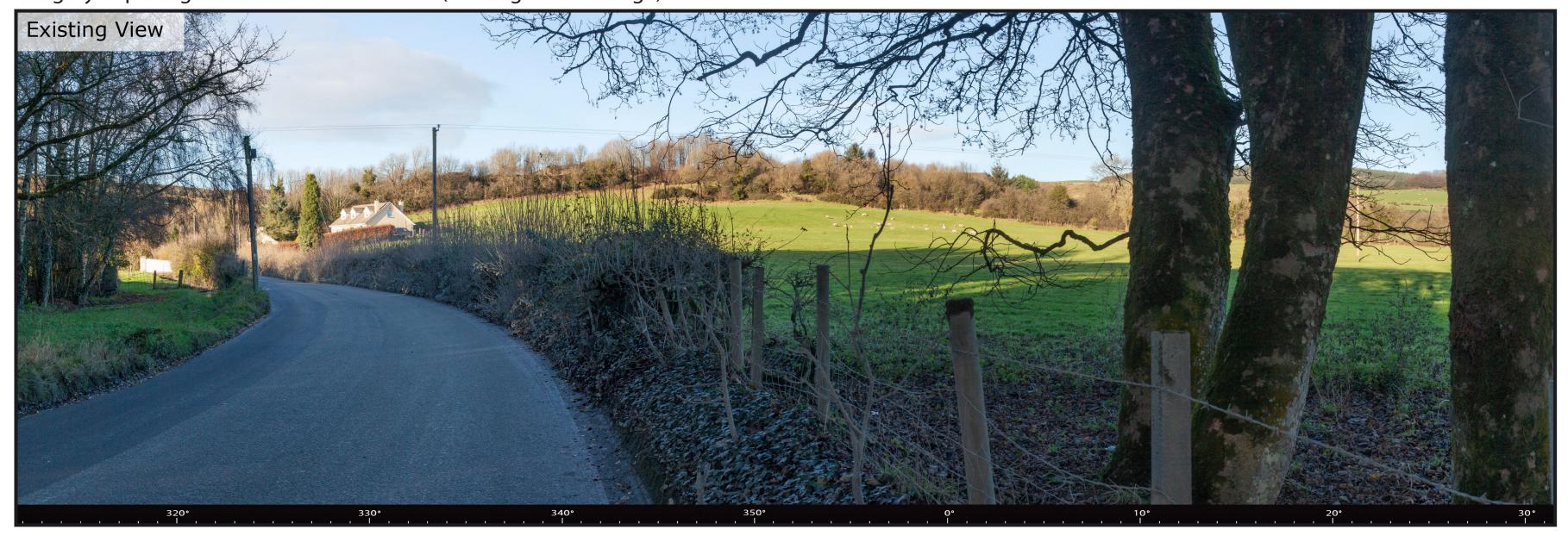
To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 699720
Northing (ITM): 717480
Direction of View 11° W of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 14:49







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): Northing (ITM): Direction of View 8° W of Grid North Angle of View:

699556 717768 80°

Lens: Camera: Camera Height:

50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

02/12/2024 Date: Time: 14:54







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 699189
Northing (ITM): 718293
Direction of View 56° E of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 15:00







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 700014
Northing (ITM): 717719
Direction of View 33° W of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 13:32







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): Northing (ITM): Direction of View 5° W of Grid North Angle of View:

699638 717173 80°

Lens: Camera: Camera Height:

50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

02/12/2024 Date: Time: 13:39







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): Northing (ITM): Direction of View 3° W of Grid North Angle of View:

699755 714310 80°

Lens: Camera: Camera Height:

50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

02/12/2024 Date: Time: 14:15







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 701639
Northing (ITM): 717468
Direction of View 65° W of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 13:09







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 703973
Northing (ITM): 717334
Direction of View 95° W of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 12:50







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 700649
Northing (ITM): 713728
Direction of View 24° W of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 14:28







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 697599
Northing (ITM): 714662
Direction of View 14° E of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 14:02







To view these panoramas on a flat surface one must move from left to right along its length whilst maintaining a perpendicular viewing direction and the specified correct viewing distance of 30cm. To see this entire panoramic scene in reality would necessitate turning one's head through 40°.

Easting (ITM): 698502
Northing (ITM): 715072
Direction of View 18° E of Grid North
Angle of View: 80°

Lens: Camera: Camera Height: 50mm / Full Frame Sensor Canon 1-D Mark II digital SLR 1.7m Above Ground Level

Date: 02/12/2024 Time: 13:48

