

EIAR – Volume 3 - Appendices Proposed Quarry Re-Commencement & Extension Part 3

Herbie Stephenson Limited
Deerpark, Donard, Co. Wicklow





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APPENDICES

Appendix 12-1: LVIA Methodology

Appendix 12-2: ZTV Map

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1 LANDSCAPE AND VISUAL METHODOLOGY

1.1 Assessment Methodology

Production of this Landscape and Visual Impact Assessment involved:

- A desktop study to establish an appropriate study area, relevant landscape and visual designations in the current 2022-2028 Wicklow County Development Plan as well as other sensitive visual receptors. This stage culminates in the selection of a set of potential viewpoints from which to study the effects of the proposal;
- Fieldwork to establish the landscape character of the receiving environment and to confirm and refine the set of viewpoints to be used for the 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; and,
- Incorporation of mitigation measures to reduce potential impacts and estimation of residual impacts once mitigation has become established.

1.2 Landscape Impact Assessment Criteria

When assessing the potential impacts on the landscape resulting from a proposed development, the following criteria are considered:

- Landscape character, value and sensitivity;
- Magnitude of likely impacts; and,
- Significance of landscape effects.

The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria set out in **Table 1.1.**

Table 1.1 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 of 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.

The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development. 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 Site boundary that may have an effect on the landscape character of the area. **Table 1.2** refers.

Table 1.2 Magnitude of Landscape Impacts

Magnitude of Impact	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.

The significance of a landscape impact is based on a balance between the sensitivity of the landscape receptor and the magnitude of the impact. The significance of landscape impacts is arrived at using the following matrix set out in **Table 1.3**.

Table 1.3 Impact Significance Matrix

	Sensitivity of Receptor			The same of the sa	
Scale/Magnitude	Very High	High	Medium	Low	Negligible
Very High	Profound	Profound- substantial	Substantial	Moderate	Minor Pos
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

Note: The significance matrix provides an indicative framework from which the significance of impact is derived. The significance judgement is ultimately determined by the assessor using professional judgement. Due to nuances within the constituent sensitivity and magnitude judgements, this may be up to one category higher or lower than indicated by the matrix. Judgements indicated in orange are considered to be 'significant impacts' in EIA terms.

1.3 Visual Impact Assessment Criteria

As with the landscape impact, the visual impact of the proposed development will be assessed as a function of sensitivity versus magnitude. In this instance, the sensitivity of the visual receptor, weighed against the magnitude of the visual effect.

1.3.1 Sensitivity of Visual Receptors

Unlike landscape sensitivity, the sensitivity of visual receptors has an anthropocentric basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity they are engaged in and whether this heightens their awareness of the surrounding landscape. A list of the factors considered by the assessor in estimating the level of sensitivity for a particular visual receptor is outlined in the main report and used to establish visual receptor sensitivity at each VRP:

1.3.1.1 Susceptibility of Receptors

In accordance with the Institute of Environmental Management and Assessment ("IEMA") Guidelines for Landscape and Visual Assessment (3rd edition 2013) 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; and
- 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".

1.3.1.2 Values Associated with the View

- Recognised scenic value of the view (County 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;
- 2. Views from within highly sensitive landscape areas. Again, highly sensitive landscape designations are usually part of a county's Landscape Character Assessment, which is then incorporated within the County Development Plan and is therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them;
- 3. Primary views from dwellings. A proposed development might be seen from anywhere within a particular residential property with varying degrees of sensitivity. Therefore, this category is reserved for those instances in which the design of dwellings or housing estates, has been influenced by the desire to take in a particular view. This might involve the use of a slope or the specific orientation of a house and/or its internal social rooms and exterior spaces;
- 4. **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 county or regional scale;
- 5. **Connection with the landscape**. This considers whether or not receptors are likely to be highly attuned to views of the landscape i.e. commuters hurriedly driving on busy national route versus hill walkers directly engaged with the landscape enjoying changing sequential views over it;
- 6. **Provision of 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;
- 7. 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;
- 8. **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;

- 9. **Presence of striking or noteworthy features.** A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle;
- 10. **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;
- 11. 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;
- 12. **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;
- 13. **Sense of place**. This considers whether there is special sense of wholeness and harmony at the viewing location; and
- 14. **Sense of awe**. This considers whether the view inspires an overwhelming sense of scale or the power of nature.

Those locations which are deemed to satisfy many of the above criteria are likely to be of higher sensitivity. No relative importance is inferred by the order of listing in the Error! R eference source not found.. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular.

1.4 Visual Impact Magnitude

The magnitude of visual effects is determined on the basis of two factors; the visual presence (relative visual dominance) of the proposed development and its effect on visual amenity.

Visual presence is a somewhat quantitative measure relating to how noticeable or visually dominant the proposed development is within a particular view. This is based on a number of aspects, aside from scale in relation to distance. Some of these aspects include the extent and complexity of the view, as well as the degree of existing contextual movement experienced. The backdrop against which the development is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposed development within the available vista and is often, though not always, expressed as one of the following terms:

- Minimal:
- Sub-dominant;
- Co-dominant:
- Dominant;
- Highly dominant.

Table 1.4 Magnitude of Visual Impact

The magnitude of visual impacts is classified in Table 1.4 . Table 1.4 Magnitude of Visual Impact					
Table 1.4 Mag	Table 1.4 Magnitude of Visual Impact				
Criteria	Description				
Very High	The proposed development obstructs or intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. An extensive degree of visual change will occur within the scene completely altering its character, composition and associated visual amenity				
High	The proposed development obstructs or intrudes into a significant proportion or important part of the available vista and is one of the most noticeable elements. A considerable degree of visual change will occur within the scene substantially altering its character, composition and associated visual amenity				
Medium	The proposed development represents a moderate intrusion into the available vista and is a readily noticeable element. A noticeable degree of visual change will occur within the scene perceptibly altering its character, composition and associated visual amenity				
Low	The proposed development intrudes to a minor extent into the available vista and may not be noticed by a casual observer and/or the proposed development would not have a marked effect on the visual amenity of the scene				
Negligible	The proposed development would be barely discernible within the available vista and/or it would not influence the visual amenity of the scene				

1.5 Visual Impact Significance

As stated above, the significance of visual impacts is a function of visual receptor sensitivity and visual impact magnitude. This relationship is expressed in the same significance matrix and applies the same EPA definitions of significance as used earlier in respect of landscape impacts (Table 1.3 refers).

1.6 Quality and Timescale of Effects

In addition to assessing the significance of landscape effects and visual effects, the EPA Guidance for EIAs¹ requires that the quality of the effects is also determined. In relation to the quality of effects, Table 3.4 of the current EPA Guidance states that these could be 'Positive', 'Neutral' or 'Negative/Adverse Effects'. A description of each is included below;

- "Positive Effects: A change which improves the quality of the environment (for example, by increasing species diversity, or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
- Neutral Effects: No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
- Negative/Adverse Effects: A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance)."

¹ Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022)

- Long Term Effects lasting fifteen to sixty years; and
- Permanent Effects lasting over sixty years.

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