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7. LANDSCAPE AND VISUAL IMPACT

7.1 Introduction

This chapter presents the findings of a landscape and visual impact assessment that was conducted to assess the impact of Patton Bros. existing quarry development on the landscape and visual amenities of the surrounding area.

Landscape and visual effects are independent but related issues; landscape effects are changes in the landscape, its character and quality, while visual effects relate to the appearance of these changes and the resulting effect on visual amenity. Wherever possible, identified effects are quantified, however the nature of landscape and visual impact assessment requires interpretation. In order to provide a level of consistency to the assessment, the appraisal of sensitivity and the prediction of magnitude and assessment of significance of the residual landscape and visual effects have been based on pre-defined criteria, as described further preceding the relevant sections of this chapter.

This section also outlines the methodologies used to assess the landscape and visual impacts and provides details on proposed remedial measures.

7.2 Methodology

The methodology used to assess the impacts of the development on the landscape entailed: -

- A desk study, including a review of the Donegal County Development Plan 2012-2018.
- Visiting the site during the winter of 2014 and the summer of 2017 and preparing a photographic record of views and landscape features.
- Reviewing the detailed plans and sections of the proposed development.

This Section has been prepared in accordance with the Environmental Protection Agency's (EPA) *Guidelines on the Information to be Contained in Environmental Impact Statements*, 2002, while the following documents were also considered: -

- The EPA's *Advice Notes on Current Practice in the preparation of EIS* (2003);
- Donegal County Development Plan 2012-2018;
- Guidelines for Landscape and Visual Assessment, 3rd Edition; and,
- The Department of Environment, Heritage and Local Government's *Landscape and Landscape Assessment Consultation Draft of Guidelines for Planning* Authorities, 2000.

The latter document prescribes that *in those decisions where landscape considerations are relevant,* ... , *regard should be had to the policy and* objectives of the Development Plan for the particular landscape character, values and sensitivity in question.

The landscape and visual impact assessment of the proposed development examines and describes the existing landscape character of the receiving environment. The impact of the development on that character is assessed, including views into and out of the existing quarry. In determining the impact, consideration will be given to reducing any significant impact associated with the development proposal and accordingly, mitigation measures are proposed.

7.2.2 Landscape in the Existing Environment

The landscape is made up of two separate but related elements, "the first is visual impact... the extent to which new developments can be seen. The second is impacts on the character of the landscape ... responses that are felt towards the combined effects of the new development".

7.2.3 Impacts on the Landscape

This includes an assessment of the 'do nothing' approach alongside the predicted impacts of changes in characters, visibility, patterns of land use.

The predicted impacts refer to direct, indirect, secondary and cumulative.

7.2.4 Definitions of Visual Impact

The visual assessment uses the following terminology: -

Visual Intrusion Occurs where a proposed development impinges on an existing view without

obscuring the view.

Visual Obstruction Occurs where a proposed development obscures an existing view.

Degree of Visual Impact:

None There will not be any change to an existing view.

Imperceptible An impact capable of measurement but without noticeable consequences.

Low (slight) An impact that does not cause significant or profound changes to the existing

environment.

Moderate Impact which by its magnitude, duration or intensity alters an important

aspect of the environment.

High (profound) The view would be altered to a significant degree as to affect a dramatic

change.

¹ Visual effects assessment: is concerned with how the surroundings of individuals or groups of people may be specifically affected by change in the landscape. This means assessing changes in specific views and in the general visual amenity experienced by particular people in particular places.

Landscape effects assessment: deals with changes to landscape as a resource. Society as a whole has an interest in this and it is recognised as one of the key dimensions of environmental interest, alongside matters such as biodiversity, or cultural heritage. It is concerned with issues like protected landscapes, the contribution of landscape character to sense of place and quality of life for all, and the way that change may affect individual components of the landscape; from Guidelines for Landscape and Visual Impact Assessment – Third Edition, Consultation Draft

Visual impacts may be Neutral, Positive or Negative.

Neutral Neutral impacts will neither enhance 'nor' detract from the landscape

character or viewpoint.

Positive Positive impact will improve or enhance the landscape character or

viewpoint.

character viewpoint.

The duration of potential impacts is defined as follows: -

Temporary Impacts lasting one year or less.

Short term Impacts lasting one to seven years.

Medium term Impacts lasting seven to twenty years.

Long term Impacts lasting twenty to fifty years.

Permanent Impacts lasting over fifty years.

7.3 Landscape Character

The site is situated in a sparsely populated rural area. The lands surrounding the site are thus rural in nature; characterised by small fields enclosed by hedgerows and trees and scattered, one off housing and farm outbuildings.

The landscape surrounding the quarry is comprised of rough agricultural grazing land and woodland. There are small open fields with hedgerows and sparse treelines.

7.3.1 Landscape Character Assessment

The Donegal County Development Plan 2012 – 2018 (CDP) was consulted with regard to Landscape Character and the Planning and Development Act 2000 (as amended) requires the inclusion of a development plan objective for: "The preservation of the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest".

The primary reference for landscape evaluation is the "Landscape Character Assessment for County Donegal" formulated by Donegal County Council in 2015. The landscape of Donegal has been subdivided into different areas according to their visual quality and characterization.

Patton Bros Quarry is located in LCA 14 Finn Valley as designated in the Landscape Character Assessment for County Donegal. Details of 'LCA 14' are contained in Appendix 9.1.

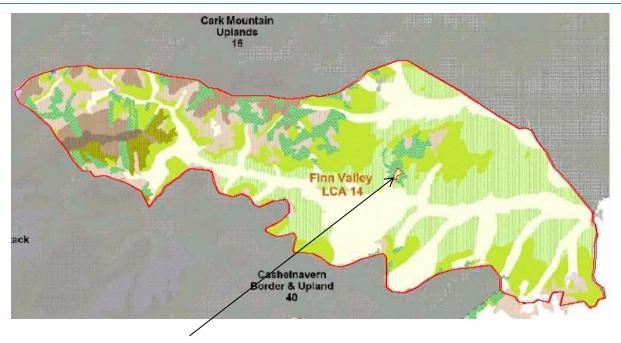


Figure 7.1 Donegal Landscape Character Assessment

The area where the quarry is located is described as follows: -

Agricultural arable and pasture

Areas of high quality arable land generally located to the east of the county around the Finn Valley and Foyle valley within an area colloquially known as the Laggan. Inland agricultural areas prevalent in the Lough Fern LCA (18) and in mid-Inishowen.

7.4 Amenity

Map 7.1.1 of the Draft Donegal County Development Plan 2018-2024 indicates that there are three separate classes of amenity area within the county that apply to all lands within the entire county. They are: -

- Areas of Especially High Scenic Amenity (EHSA)
- Areas of High Scenic Amenity (HAS)
- Areas of Moderate Scenic Amenity (MSA)

Following a review of the Draft County Development Plan, it is determined that the quarry lies on the border of two separate areas, being: -

- Areas of High Scenic Amenity (HAS)
- Areas of Moderate Scenic Amenity (MSA)



Figure 7.2 Areas of Scenic Amenity Source: Donegal County Development Plan 2012 - 2018

7.5 Development Plan Objective

The Development Plan contains an objective relating to landscape which seeks: -

EX-O-2: To preserve the character of the landscape where and to the extent that, the proper planning and sustainable development of the area requires it, including the preservation of views and prospects, cultural features and the amenities of places and features of natural beauty or interest.

7.6 Views and Prospect

Views and prospects worthy of preservation and protection are indicated on Map 8 of the County Development Plan. The protection exists in the direction of the views.

There are no views or prospects close to the quarry that will or have been affected by the quarry

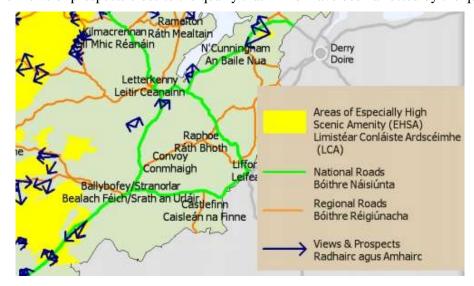


Figure 7.3 Views and Prospect Source: Donegal County Development Plan 2012 - 2018

7.6 Existing Environment / Receiving Environment

7.6.1 Site Context

The quarry is located in a rural area on a south westerly hill slope within the Finn Valley c.2.5km northeast of Stranorlar and 1.2km north of the N15 road connecting Lifford to Stranorlar, Co Donegal.

The site is close to the Ballybofey and Stranolar Golf course and is set on the west side of Gortletteragh Coillte forest plantation. The site is elevated above the river Finn Valley.

The surrounding landscape is pasture with enclosed hedgerow boundaries. Most of the hedgerows are tall and gappy, The main land use is cattle and sheep pasture.

East Donegal's hill landscape is more rolling and gentle than that found in west and north Donegal.

The quarry is located in a rural area with very few houses and no commercial activity in the immediate area. The nearest house to the active quarry face is located approximately 300 metres away to the southeast. An additional seven houses are located between 500m and 750m from the site.

One off houses and farmsteads are scattered throughout the area. The dwellings, both single and two storey houses dotted throughout the landscape are a mix of modern and older dwellings. These dwellings contribute to the cultural/historic associations with the landscape.

7.6.2 Visual Aspect of the Quarry

The quarry is not visible from the main (N) National roads the N15, the major road from Ballybofey/Stranorlar to Lifford and Strabane, or from the N13, the main road from Ballybofey/Stranorlar to Letterkenny. There are good access roads from the quarry throughout the main road network of Donegal.

The quarry becomes visible on the local (L) road from the town of Stranolar at approximately 250m from the quarry site.

The woodland and shrub habitat on the approach to the quarry road from Stranolar hides the quarry works until 200m from the quarry entrance, from the east side of the quarry, the quarry is hidden by the Gortletteragh forestry plantation.

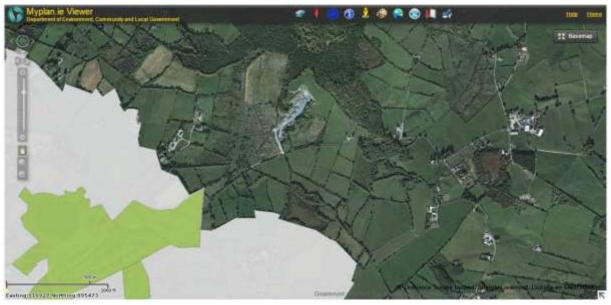


Plate 7.4 Aerial via of the quarry and surrounding landscape

Plate 7.4 clearly shows the woodland area to the north and east that restricts views into the quarry as does the tree cover on the main western approach to the town from Stanorlar which is shown in Plate 7.5 below.



Plate 7.5 Tree line on western approach to quarry viewed from quarry entrance

Plate 7.6 is a view of the approach from the north east with the entrance to the quarry on the right side of the road in the middle of the photo. Even in mid-winter, the roadside tree cover restricts views into the quarry.



Plate 7.6 Approach towards quarry entrance on the right from Cooldawson to the east

7.6.3 Quarry entrance and view from west

Plates 7.7 and 7.8 below show images of the quarry from google earth in January 2010 before the perimeter planting has been carried out along the western boundary adjacent to the entrance while Plates 7.9 and 7.10 are images taken from the same locations as Plates 7.7 and 7.8 from the summer of 2017. They illustrate that the Leyland Cypress trees screen that has been planted along the western perimeter has significantly reduced the visual impact of the quarry from the main point where views of the quarry are available. The images also show the elevated topography to the north and east of the quarry that significantly reduces the visual envelope within which views are possible.



Plate 7.7 2010 view of quarry prior to planting of landscaped boundary from 150m west of quarry



Plate 7.8 2010 view of quarry prior to planting of landscaped boundary from 200m west of quarry



Plate 7.9 2017 view of quarry with landscaped boundary from 150m west of quarry



Plate 7.10

2017 view of quarry with landscaped boundary from 200m west of quarry

7.6.4 View From nearest residential property

The nearest residential property is located c 300m from the nearest point of the quarry and an images taken along the public road close to the front of the house is shown below at Plate 7.11. It shows that the existing hedge and treeline have restricted the views into the quarry with only a small part of the embankment at the rear of the quarry visible form the road through a gated entrance to an adjoining field.



Plate 7.11 Limited view of earth bank behind quarry from 200m north of vehicular entrance

7.7 Impact of the Development

This section examines the landscape and visual impacts of the development, in addition to the overall significance on the surrounding landscape and visual characteristics.

The impacts of the development in this rEIS are those that have occurred as a result of past extraction of stone from the site, and any landscaping works undertaken to reduce the visual impact of the works on the landscape.

The effects of the development may be negative, positive, cumulative, residual, and may be permanent or temporary. In addition, they may have different levels of significance at local, regional and national level.

The perimeter planting along the western site boundary has permanently and significantly reduced the negative visual impact of the quarry from the western approach to the quarry and has had a permanent positive effect.

7.8 Assessment of Impacts

The site has been significantly altered as a result of past quarrying activities. Upon assessment of the locality, it was determined that the site is visible from a very limited number of areas, as the topography of the area, in addition to the existing vegetation around the site and its nearby lands, screens the site exceptionally well from public view.

Due to the nature of extractive industry, all works occur below ground levels but the nature of the topography is such that notwithstanding the presence of now mature landscaping along the western site boundary limited views into the quarry are still visible on approach from the west. The views are not of the working quarry but of part of the quarry face and soil layer set against a backdrop of the elevated woodland to the rear of the site.

Some limited oblique views of the quarry are also visible from the Patton Family houses located c500m-750m to the west of the quarry and from the nearest house to the east of the quarry.

While stone extraction has altered the landscape to date, the assessment of the existing visual environment and the impact of the existing development and its various component parts on visual receptors have been assessed. There are no designated focal points or views in the vicinity of the quarry site listed in the Donegal County Development Plans.

While the stone extraction operations to-date has altered the landform and vegetation cover, the magnitude of change as a result of the development has been assessed as Low.

7.9 Cumulative Impacts

Due to the nature of quarrying operations, it is inevitable that there will be an impact on the surrounding landscape. However, the severity of the impact can be substantially reduced through the implementation of landscaping mitigation measures through screening; site layout/planning; planting; utilisation of existing landscape features and progressive site restoration.

The limited views of the quarry from local viewpoints have a slight impact on the character of the landscape.

The landscape character, topography and landcover has changed slightly, but only on a very localised level. The quarry site is not sufficiently visible to impact significantly on the landscape quality of the surrounding lands.

The profile of the land visible has not altered significantly and from most locations on the local road network, the site is only partially visible particularly as a result of the mitigation measures implemented to date. The view of the quarry is not a significantly detracting feature when in view.

7.10 Mitigation and Restoration Measures

Due to the nature of quarrying operations, it is inevitable that there will be an impact on the surrounding landscape. However, the severity of the impact can be substantially reduced through the implementation of landscaping mitigation measures through screening; site layout/planning; planting; utilisation of existing landscape features and progressive site restoration. The appearance of a quarry is a major influence on how the site is perceived by the public. Therefore, the extraction and restoration schemes include landscape development, planting, and screening of operational areas.

The quarry is located in a rural location and visual impact was greatly minimised by the location and setting of the quarry as seen in the viewpoints above.

Mitigation measures include avoidance, reduction, compensation and remedy of potential impacts. The primary means of mitigation involves the planting of the perimeter boundaries but due to the small scale of the quarry restoration would not be practical until the quarry has been exhausted.

The construction of an additional berm along the eastern boundary of the working quarry closest to the nearest resident property and the application of additional vegetation of this boundary will further aid in the screening of the quarry from public view.

Within 12 months of a grant of substitute consent from An Bord Pleanala, the eastern boundary area should be re-contoured as should the eastern side along the edge of the working area and it is recommended that it be planted with a native hedge species.

The final restorations should commence on a progressive basis on the completion of all extraction and processing activities and will consist of the following: -

- 1. All remaining stock piled material will be removed from the site (or levelled out).
- 2. All plant and machinery will be removed from the excavation area.
- 3. All site boundaries will be secured.
- 4. The quarry floor will be filled with approximately 1m of soil and native grasses will be planted thereon.
- 5. Additional planting of trees and shrubs may be necessary in some areas.

7.11 Residual Impacts

The visibility of the application site from the receiving environment is minimal due mainly to the application site being below ground level. If proposed landscaping and restoration works are undertaken, minor residual visual impacts are anticipated. The restoration plan will increase the diversity of the site once all aggregate has been removed and will attract wild life to the area.