Castlepollard Quarry, Deerpark, Castlepollard, Co. Westmeath

Castlepollard Quarry

Environmental Impact Assessment Report

Section 15

Interactions of the Foregoing

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15 INTERACTIONS OF THE FOREGOING

15.1 INTRODUCTION

Schedule 6 of the Planning and Development Regulations 2001 (S.I. 600/2001) sets out the requirement to consider the interrelationships of certain aspects of the environment as part of the EIA process. All environmental factors are inter-related to some extent, and this section draws attention to significant interactions and interdependencies in the existing environment.

Interactions are usually highly complex, and a change in any one factor, such as land-use or water quality, could affect all of the other interrelated factors. Assessors need to be vigilant for pathways – direct and indirect – that can magnify effects through the interaction or accumulation of effects – for instance the potential for cumulative significant effects to arise from multiple non-significant effects. Although almost all environmental aspects are interrelated to some degree only the significant interactions are usually considered in an assessment.

The scoping stage should consider the likely relevant interactions that need to be assessed in the EIAR. The EPA (2017) notes that the interactions between impacts on different environmental factors should be addressed as appropriate throughout the EIAR. The interactions of the impacts and mitigation measures between one topic and another, where applicable, are discussed under the respective environmental factor in sections 4 to 14, rather than in Section 15 Interactions. This section draws attention to significant interactions and interdependencies in the existing environment, but the actual interactions and their significance are dealt with in the relevant chapter.

An EIAR is typically prepared by a number of specialist consultants, and as a result, it is important that the interactions between the various disciplines are also considered. Close coordination and management within the EIA team is needed to ensure that interactions are adequately addressed throughout an EIAR.

The general practice is to include a matrix to show where interactions between effects on different environmental factors have been addressed. This is usually done using the actual headings used in the EIAR for each factor. The following matrix has been generated to show where possible interactions (top of matrix) may result between the various environmental factors including brief details (bottom of matrix). For details of any interactions refer to the relevant sections of the EIAR.

Table 15 Interactions Matrix

Table 15 Interactions Matrix Con Construction Phase Op Operational Phase x No Interaction ● Weak Interaction ● Strong Interaction														oraction	7								
Factors	s 4		4	5		Land, Soils & Geology		7		8		9		10		11		C 12		13		14	
(Interaction)		Population & Human Health Con. Op.		Biodiversity		-		Water		Climate		Air Quality		Noise & Vibration		Landscape		Cultural Heritage		Material Assets		Traffic Con. Op.	
4 Population & Human Health		on.	Ор.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	X	Op.	Con.	Op.	X	Φ.
E	The single Peregrine Falcon recorded nesting on the cliff face of the NW area of the site will not be affected by the proposed development. Vegetation clearance will be undertaken outside the bird nesting season from 1st March to August 31st						•	х	•	x	x	•	•	•	•	ion	•	х	х	х	х	х	х
6 Land, Soils	due to re long-terr restorati preserva	restoration includes provision for			There will be no significant change to the quarry habitats. The predicted direct effect on footprint habitats is neutral, imperceptible and long-term.				•	х	х	х	X	х	SAS	•	•	x	х	х	•	х	Х
7 Water	potential for impact on local wells is predicted. No PWS nor GWS abstractions within the radius of influence of the quarry have been identified. No other quarry nor other developments are within a significant distance to affect a cumulative impact			~1%, of >100 water catchmedownstream S Ree. No impa this ratio, distantagnitude of between the s	Surface water catchment is ~1%, of >1000 km² surface water catchment of the closest downstream SAC, i.e., Lough Ree. No impact is possible at this ratio, distance and the magnitude of the land mass in between the site and any sensitive receptor.		Accidental spillage of contaminants during site operations could cause short o long term, moderate to significant impacts to soils, groundwater and the surface vater environment, if not used n an environmentally safe nanner.				•	х	X	//*//	х	х	х	х	x	х	•	х	X
8 Climate	X x				x	Hydrological survey for receiving waters suggests that discharge to Yellow River system can be accommodated with no risk of flooding.				x	Offi	X	х	х	х	х	х	х	х	х	х		
9 Air Quality	negative impleme operatio	The impacts of dust from the operations we negative and confined to the site area. Mis implemented to minimise any impacts as no operation of the quarry will not result in any residences or local amenities.			ures will be ical to ensure the		х		х		x	By		х	х	х	•	х	х	х	x	х	•
10 Noise &	experier during d traffic. It impact v will be lo	Residences along R395 are typically experiencing noise levels of >55 dBLAeq during daytime hours due to passing traffic. It is considered that any direct impact with respect to noise emissions will be long-term, slight, negative due to			ected by the elopment. earance will be utside the bird on from 1st March		х		х		X C	illo) x				х	х	х	x	x	•	х	•
11 Landscape	It is expected that in the absence of mitigation measurablight to moderate negative effects with respect to loc residential receptors as a result of development of Consideration has been given to screening using prevegetation, provision of screening berms as necessal restoration of upper quarry face and the final restoration oce operations at the site cease			espect to local a opment of Castl ng using preser	amenity and epollard Quarry. vation of existing	resources. Significant, long- term, positive impacts if site		x.II		х		There may be an associated occasional slight negative visual impact with fugitive dust generation, This impact will be minimised by the mitigation measures described to minimise dust in Section 9.6.		x				х	х	•	•	х	x
12 Cultural Heritage		x			x	x)) x		7	X	х			x		х			х	х	х	х
13 Material Assets	due to re Significa site rest preserva	Moderate, permanent, negative impact due to removal of mineral resources. Significant, long-term, positive impacts if site restoration includes provision for preservation, promotion and access to designated geoheritage features.			x	Moderate, permanent, negative impact due to removal of mineral resources. Significant, long-term, positive impacts if site restoration includes provision for preservation, promotion and access to designated geoheritage features.		Groundwater as a source of water supply is not a receptor because there are no domestic wells and no public water supply wells in proximity.		2	x	x		Noise and vibration emanating from the quarry due to operating machinery and intermittent blasting will be controlled to within accepted noise and vibration thresholds.		Consideration has been given to screening using preservation of existing vegetation, progressive restoration of upper quarry face.		x				x	•
14 Traffic	the R39 traffic or conside capacity has bee	The traffic impact of the quarry site on the R395 will result in an increase in traffic on the network, but this increase is considered not significant. The existing capacity of the adjacent road network has been shown to comfortably accommodate these minor increases.			×	x		х		2	X	There will be imperceptibl respect to local amenity a receptors as a result of d. Trucks entering and leavi with dusty materials shall and they shall pass through wash before exiting.	levels of >55 dBLAeq during		х		х		The Worst-Case Impact of the development could be the deterioration of the pavement along the R395 due to HGV traffic. This may require maintenance works during the life of the development.				