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10.0 INTERACTIONS

The interactions between the environmental issues are outlined in Table 10.1 below and it identifies where different aspects of the environmental factors inter-relate with each other.

All environmental factors will interact to some extent however, that interaction may not be significant. The comprehensive impact assessment carried out as part of this rEIS has revealed that the proposal has not resulted in any significant adverse effects or cumulative impacts on the environment.

This remedial Environmental Impact Statement interactions are considered as follows and demonstrated by a two dimensional matrix. This section of the report will discuss interrelationship between topic interactions.

Table 10.1 Matrix of Interactions between topics

	Human beings	Flora and fauna	Soil and geology	Water	Air	Climate	Landscape	Material assets	Cultural heritage
Human-beings					*		*	*	
Flora and fauna			**				*		
Soil and geology		***					*		
Water		*							
Air	*								
Climate					*				
Landscape	*	*							
Material assets	*								
Cultural heritage	0								

Degree of interaction: *** high, ** medium, * slight/low 0 no interaction foreseen

10.1 Human Beings and Landscape

Perception of landscape is the major defining factor of how human beings view their local environment. Any development will cause a degree of concern when situated within a locality. The landscape impact of the proposed development and interaction with the local community, already exists due to fact that a quarry already exists within the site. Mitigation measures have been discussed

in Chapter 7 to restore the landscape at decommissioning to be discussed with landowner, Donegal County Council, the local community and other interested bodies.

10.2 Human beings and material assets

There are no residential dwellings located close or adjacent to the proposed quarry extension. The quarry is located in an area enclosed by semi mature forestry plantation. The existing forestry plantation provides a robust buffer zone around the proposed quarry perimeter, ensuring the limitation of perceived environmental impacts of landscape impact, and quarry operational impacts giving rise to noise and dust. This ensures that perceived nuisance impacts arising from quarry working are limited and confined to the immediate quarry operational area.

10.3 Flora and Fauna interactions with soil and geology

Prior to future quarry operations to extract stone, any remaining soils and overburden will be removed and stored in bunds (mounds) at the site perimeter until site decommissioning.

Mitigation for the proposed quarry extension has discussed a soil and overburden management guideline to store soil and overburden separate in low mounds, to enable the developer reduce possible impact to flora and fauna and to preserve seed stock of local provenance to ensure the quality of ecological landscape restoration at site decommissioning.

10.4 Flora and Fauna, interaction with geology and soil and interaction with Landscape

The Landscape impact due to the operational quarry has been found to be minimal with no adverse effect; this is due to the existing conifer plantation surrounding the proposed quarry extension. The conifer plantation will be retained until after the decommissioning of the quarry and site restoration has begun.

10.5 Human beings interactions with Air and Climate

The interaction between humans and air/climate during site operations is slight. Donegal's prevalent wind is from the south west and secondary from the west.

Two main impacts relating to air are dust and noise.

Dust impact into the surrounding area will be minimal; dust fall will not penetrate beyond the conifer tree buffer zone. Buildings and residential dwellings are located at a distance of > 300m from the quarry operational area, therefore no dust impact exists.

Noise from operational machinery is carried on air waves. The existing conifer plantation provides a buffer zone surrounding the proposed quarry area that reduces the impact of noise into the areas beyond the quarry operational area. Quarry operational noise is not considered to have occurred

during site operation based upon noise assessment results. Ambient noise during operation will be no more intense than general farm machinery working in the background.

No adverse Impact is known in respect of climate.

10.6 Human Beings interaction with soil and water

Site hydrology is considered in chapter 6. Surface runoff water is directed towards siltation lagoons. Suspended solids are allowed to settle within the phased settlement pond system before discharge in the local stream. A two wheel wash unit is installed to limit the carrying of nuisance silt and sludge to the main road. This combined with regular dampening down of aggregates and the working quarry area ensures there is no adverse effect locally due to nuisance dust plumes. No site produced contaminants leave the site to filter into the local environment.

10.7 Difficulty in compiling topic information

No particular difficulties were encountered, such as technical difficulties or lack of knowledge in compiling information contained within this remedial Environmental Impact Statement. Impact mitigation to reduce impact has been described and discussed in each chapter of this document. Where appropriate, existing published sources of information have been used and acknowledged. Commissioned studies and surveys undertaken for the purpose of environmental assessment of the proposed development have been referred to. The geology section was undertaken by an environmental geologist who has carried out numerous geological studies in the past 20 years. If required a geological site survey will be carried out before the re commencement of site works.