Galway Harbour Company

Galway Harbour Extension

Environmental Impact Statement

Chapter 14

Interactions

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TABLES

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14 INTERACTIONS

14.1 INTRODUCTION

The significant impacts of the proposed development and the measures proposed to mitigate these impacts have been outlined in this Environmental Impact Statement. However, in any development with the potential for any impact, there is also the potential for interaction between impacts of the different environmental aspects. This section of the EIS is not intended to be a summary of all of the impacts as these have all been addressed in detail within their relevant chapters.

Table 14.1 provides a matrix of the relevant interactions for each of the environmental aspects for both the construction and operational phases and after having taken the proposed mitigation measures into account.

This matrix attempts to visually display where interactions between the various environmental topics arose and provides a generalised level of impact indicated by the colour code and based on mitigated level of impact. It is presented on the basis of the potential of the topics 1-11 to have an effect on the environmental media A-K.

Examples of significant inter-relationships of aspects of the environment with the potential to be significantly affected by the proposed development are outlined below.

14.2 HUMAN BEINGS

The potential for interactions arises with virtually all of the environmental media as non-compliance with specified requirements or standards with respect to say noise and dust could cause disturbance to birds, mammals and aquatic species.

14.3 SOILS AND GEOLOGY

Similarly with soils and geology the potential for interactions arises with many of the environmental media for example the management of suspended solids from dredging and seepage from lagoons and any extended period of drilling, blasting and pile driving.

14.4 WATER

The potential for interactions arises with human beings, soils and geology and both terrestrial and aquatic ecology. For example, accidental emissions to water bodies and an associated reduction in water quality could lead to secondary effects on aquatic communities.

14.5 AQUATIC ECOLOGY

The potential for interactions arises with terrestrial ecology and material assets in that a change in food sources could affect birds, mammals and to a lesser effect fishing.

14.6 NOISE AND VIBRATION

The potential here arises with humans, both terrestrial and aquatic ecology and material assets. For example if noise emissions exceed guideline limits, there could be impacts on humans and sensitive receptors e.g. birds, cetaceans and fish.

14.7 AIR AND CLIMATE

With this topic the potential for interactions arises with humans, terrestrial and aquatic ecology, water and landscape / visual. If dust emissions were to exceed guideline limits there could be impacts on humans and on sensitive receptors e.g. birds, cetaceans and fish. There could also be potential disturbance from extended use of lighting during construction and operation.

14.8 LANDSCAPE AND VISUAL

With this topic there could be reduced enjoyment of existing view but increased amenity and landscaping benefits and increased diversity of terrestrial habitats associated with the landscaping proposals.

14.9 ROADS AND TRAFFIC

The potential for interactions arises with the environmental media of humans, water, ecology, noise / vibration and air/climate, through potential for dust, noise, congestion, risk of spillages. Some benefits can arise in operation phase arising from potential for CO_2 reduction.

14.10 CULTURAL ASSETS

The potential for interaction arise with human beings, maintaining a maritime culture and with roads and traffic where the design solution for the Lough Atalia Road Bridge work is somewhat constrained by its designation as a protected structure.

14.11 MATERIAL ASSETS

The potential for interactions arises with all of the environmental media. Positive impacts arise from tourism, leisure and improved fishing facilities, and generally for business activity and visitors. Benefits also arise from improved storm water management systems and spillage control measures. Disturbance of birds, mammals, and aquatic species and of fishing grounds may however arise as a result of the overall improvements in road and drainage infrastructure.

		A	B	C	D	E	F	G	H	I	J	K
		Human Beings	Soils & Geology	Terrestrial Ecology	Water [Physical/ Chemical]	Aquatic Ecology	Noise & Vibration	Air and Climate	Landscape & Visual	Roads and Traffic	Cultural Assets	Material Assets
1	Human Beings			CO	CO	CO	C / O	C (air) / O (Climate)	CO	CO	CO	CO
2	Soils & Geology	C			CO	C / O	C / O	CO (air) / (Climate)			C	CO
3	Terrestrial Ecology											
4	Water [Physical / Chemical]	CO	O	CO		C / O						C / O
5	Aquatic Ecology			CO								CO
6	Noise & Vibration	CO		CO		C / O						CO
7	Air & Climate	C (air) / C (climate) / O		C	C	C			CO			
8	Landscape & Visual	CO		O							CO	
9	Roads & Traffic	CO		CO	CO	CO	CO	CO	C		C	
10	Cultural Assets	CO								C		
11	Material Assets	O	C	O	O	O	O	O	O	O	O	

Table 14.11.1 - Potential Interactions

C = Construction Stage Impact
O = Operation Stage Impact

Level of Potential Impact — Minimal / None | Low | Medium | High