

13. INTERACTIONS

13.1 Introduction

The preceding sections of this Environmental Impact Assessment Report (EIAR) identify the potential environmental impacts that may occur in terms of Population and Human Health, Biodiversity, Land Soils and Geology, Hydrology and Hydrogeology, Air and Climate, Noise & Vibration, Landscape & Visual, Cultural Heritage and Material Assets (including Traffic), as a result of the proposed development. All of the potential impacts of the proposed development and the measures proposed to mitigate them have been outlined in the preceding sections of this report. However, for any development with the potential for significant environmental impact there is also the potential for interaction amongst these impacts. The result of interactive impacts may either exacerbate the magnitude of an impact or ameliorate it.

A matrix is presented in Table 13-1 to identify interactions between the various aspects of the environment already discussed in this report. The matrix highlights the occurrence of potential positive or negative impacts during both the construction (C) and operational (O) phases. The matrix is symmetric, with each environmental component addressed in the previous sections of this report being placed on both axes of a matrix, and therefore, each potential interaction is identified twice. Interaction in the matrix does not imply a cumulative impact.

Table 13-1 Interaction Matrix: Potential for Interacting Impacts

	Population, Human Health	Flora & Fauna	Soils & Geology	Hydrology & Hydrogeology	Air & Climate	Noise & Vibration	Landscape	Cultural Heritage	Material Assets
Population, Human Health	Black	White	White	Pink	Pink	Pink	Green	White	Green
Biodiversity, Flora & Fauna	White	Black	White	Pink	White	Pink	White	White	White
Land, Soils & Geology	White	White	Black	Pink	White	White	White	White	White
Hydrology & Hydrogeology	Pink	Pink	Pink	Black	White	White	White	White	White
Air & Climate	Pink	White	White	White	Black	White	White	White	Pink
Noise & Vibration	Pink	Pink	White	White	White	Black	White	White	White
Landscape & Visual	Green	White	White	White	White	White	Black	White	White
Cultural Heritage	White	White	White	White	White	White	White	Black	White
Material Assets	Green	White	White	White	Pink	White	White	White	Black
Legend:	Potential Positive Effect:				Green				
	Potential Neutral Effect:				Yellow				
	Potential Negative Effect:				Pink				
	No Interacting Effect:				White				

The potential for interaction of effects has been assessed as part of the Impact Assessment process. This EIAR was edited and collated by MKO as an integrated report of findings from the impact assessment process, rather than a collection of individual assessments carried out in isolation, and impacts that potentially interact have been discussed in the individual chapters of the EIAR above.

13.2 Impact Interactions

Where any potential negative effects have been identified during the assessment process, these impacts have been avoided by design or reduced by the proposed mitigation measures.

13.2.1 Population and Human Health

Population & Human Health and Hydrology & Hydrogeology

Any impacts on water associated with any development has the potential to impact on human health in particular where water abstraction sources are present. The proposed development has limited potential to give rise to water pollution as a result of site activities due to the lack of hydrological features on or immediately adjacent the site. Also, there are no water abstraction points in the vicinity of the site. Mitigation measures are presented in Chapter 7 to minimise the risk of any such issues.

Population & Human Health and Air & Climate

The construction phase of the proposed development has the potential to create dust and other less noticeable air pollutants, which could give rise to nuisance for occupants of nearby dwellings. Mitigation measures are presented in Chapter 8 to minimise the risk of any such issues.

Population & Human Health and Noise & Vibration

The construction phase of the proposed development has the potential to create noise and some vibration, which could give rise to nuisance for occupants of nearby dwellings. Mitigation measures are presented in Chapter 9 to minimise the risk of any such issues.

Population & Human Health and Landscape

The existing vacant site and construction compound will be developed during the construction phase of the proposed development, which will remove the current negative impact that the site has on the character of the local landscape. The planned landscaping and maintenance works and completion of proposed buildings means that the improvement in landscape character will be seen from the outside. The provision of residential and commercial space within the environs of Galway city will allow additional people to find homes and will encourage additional jobs to locate in Galway, sustainably improving the local economy for the long term.

Population & Human Health and Material Assets

The proposed mix of uses are mutually compatible and support the viable completion of development on site as well as complementing existing adjacent land use. Increased public access to the site facilities and amenities benefit both the local community and city.

13.2.2 Biodiversity

Biodiversity and Hydrology & Hydrogeology (Water)

Site activities have the potential to give rise to some water pollution (although this is limited), and consequential impacts on flora and fauna that rely on or use that water within the same catchment. These potential impacts have been assessed, and the relevant measures will be in place to avoid any water pollution and subsequent effect on flora and fauna.

Biodiversity, Flora & Fauna and Noise & Vibration

Site activity during the construction of the proposed development has the potential to give rise to noise and some vibration that could disturb fauna. This will occur only during the construction phases which

will be temporary and the site is located within an already urbanised area so potential effects are limited.

13.2.3 **Land, Soils and Geology**

Land, Soils & Geology and Hydrology & Hydrogeology

The movement and/or removal of soils, overburden and rock as part of the construction activity has the potential to have secondary impacts on water quality in the absence of mitigation. Mitigation measures are presented in Chapter 6.

Land, Soils & Geology and Air & Climate

The movement and infilling of soils during the restoration phase has the potential to give rise to noise and dust impacts. This will occur only during the construction phases which will be temporary.

13.2.4 **Air and Climate**

Air & Climate and Material Assets

The movement of vehicles both within and to and from the site has the potential to give rise to noise and dust nuisance effects during the construction phase. This is assessed further in Chapter 8 of this EIAR, and mitigation measures are presented to minimise any potential effects.

13.3 **Mitigation and Residual Impacts**

Where any potential interactive negative impacts have been identified in the above, a full suite of appropriate mitigation measures has already been included in the relevant sections (Chapters 4-12) of the EIAR. The implementation of these mitigation measures will reduce or remove the potential for these effects. Information on potential residual effects, and their significance, is also presented in each relevant chapter.