

13 INTERACTION OF THE FOREGOING

13.1 Introduction

The preceding Chapters 4 to 12 of this EIA identify the potential environmental impacts that may have occur as a result of the proposed development in terms of Population and Human Health, Biodiversity, Flora and Fauna, Land, Geology and Soils, Hydrology and Hydrogeology, Air and Climate, Noise and Vibration, Landscape and Visual, Archaeological and Cultural Heritage and Material Assets. All of the potential significant effects 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 effects there is also the potential for interaction amongst these potential significant effects. The result of interactive effects may exacerbate the magnitude of the effects or ameliorate them, or have a neutral effect.

A matrix is presented in Table 13.1 below to identify interactions between the various aspects of the environment already discussed in this EIA above. The matrix highlights the occurrence of potential positive or negative effects of the proposed development. The matrix is symmetric, with each environmental component addressed in the previous sections of this EIA being placed on both axes of a matrix, and therefore, each potential interaction is identified twice.

Table 13.1 Interaction Matrix

	Population, Human Health	Flora & Fauna	Soils & Geology	Hydrology & Hydrogeology	Air & Climate	Noise & Vibration	Landscape	Cultural Heritage	Material Assets
Population, Human Health	Black	Light Blue	Light Blue	Pink	Pink	Pink	Green	Light Blue	Green
Biodiversity, Flora & Fauna	Light Blue	Black	Light Blue	Pink	Light Blue	Pink	Light Blue	Light Blue	Light Blue
Land, Soils & Geology	Light Blue	Light Blue	Black	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Hydrology & Hydrogeology	Pink	Pink	Pink	Black	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Air & Climate	Pink	Light Blue	Light Blue	Light Blue	Black	Light Blue	Light Blue	Light Blue	Pink
Noise & Vibration	Pink	Pink	Light Blue	Light Blue	Light Blue	Black	Light Blue	Light Blue	Light Blue
Landscape & Visual	Green	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Black	Light Blue	Light Blue
Cultural Heritage	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Black	Light Blue
Material Assets	Green	Light Blue	Light Blue	Light Blue	Pink	Light Blue	Light Blue	Light Blue	Black

Legend:

- Potential Positive Effect:
- Potential Neutral Effect:
- Potential Negative Effect:
- No Interacting Effect:

The potential for interaction of effects has been assessed as part of the Impact Assessment process. While the work on all parts of the EIAR were not carried out by McCarthy Keville O’Sullivan Ltd., the entire project and all the work of all sub-consultants was managed and coordinated by the company. This EIAR was edited and collated by McCarthy Keville O’Sullivan Ltd. 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 & Human Health

Population & Human Health and Hydrology & Hydrogeology

Any impacts associated with any development on water 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 feature’s 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 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 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 derelict building site will be completed 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 and partially constructed 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, Flora and Fauna

Biodiversity, Flora & Fauna and Hydrology & Hydrogeology

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.

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 EIA, 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 EIA. 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.