15. INTERACTION OF IMPACTS

15.1 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 15-1 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 15-1 Interaction Matrix

	Human Beings	Flora & Fauna	Soils & Geology	Hydrology & Hydrogeology	Air & Climate	Noise & Vibration	Landscape	Cultural Heritage
Human Beings, Population, Human Health								
Biodiversity, Flora & Fauna								
Land, Soils & Geology								
Hydrology & Hydrogeology								
Air & Climate								
Noise & Vibration								
Landscape & Visual								
Cultural Heritage								
Traffic & Transport								

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 MKO, 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 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.

15.2 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.

15.2.1 Human Beings

Human Beings and Noise & Vibration / Air & Climate

The Proposed Development has the potential to create noise and dust, which could create a temporary nuisance for occupants of nearby dwellings.

Mitigation measures are presented in **Chapter 9 and Chapter 10** to minimise the risk of any such issues.

Human Beings and Hydrology & Hydrogeology (Water)

The Proposed Development has the potential to give rise to some water pollution as a result of site activities, and any water pollution could impact on other users of that water within the catchment. Mitigation measures are presented in **Chapter 7 and Chapter 8** to minimise the risk of any such issues.

Population & Human health and Landscape

The restricted visibility of the site ensures that the Proposed Development will not significantly change the character of the local landscape. The retention of hedges and treelines and additional planting around the site along with the installation of berms will also mitigate against potential visual impacts.

15.2.2 Biodiversity

Biodiversity and Hydrology & Hydrogeology (Water)

Site activities during the construction and operational phase have the potential to give rise to some water pollution, and consequential impacts on flora and fauna that 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 and operational phase has the potential to give rise to noise and some vibration that could disturb fauna.

Biodiversity and Air & Climate

Site activity during the construction and operational phase could give rise to dust that could be a nuisance for fauna.

Biodiversity and Landscape

It is proposed to install berms and hedgerows within the boundary of the site. After operations have ceased at the site, the berms will be relevelled and hedgerows planted.

15.2.3 Land, Soils and Geology

Land, Soils & Geology and Hydrology & Hydrogeology

The movement and removal of soils and sand as part of the quarrying activity has the potential to give rise to impact on water quality in the absence of mitigation. Mitigation measures are presented in **Chapter 7 and Chapter 8.**

Land, Soils & Geology and Air & Climate

Soil and sand extraction, crushing and screening has the potential to give rise to dust impacts. Mitigation measures are presented in **Chapters 7 and 8**.

15.2.4 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 impacts during the operational phase. This is assessed further in **Chapter 9** of this EIAR, and mitigation measures are presented to minimise any potential effects.

15.3 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 5-14) 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.