

12 INTERACTION OF THE FOREGOING

12.1 Introduction

The preceding Chapters 4 to 11 of this EIS identify the potential significant environmental effects that may occur in terms of Human Beings population and human health, Biodiversity Flora and Fauna, Geology and Soils, Hydrology and Hydrogeology, Air and Climate, Noise, Landscape, Cultural Heritage and Material Assets, as a result of the proposed development as described in Chapter 3. 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 EIS. However, for any development with the potential for significant environmental effects there is also the potential for interaction between these potential significant effects. The result of interactive effects may exacerbate the magnitude of the effects or ameliorate them, or have a neutral impact.

A matrix is presented in Table 12.1 below to identify potential interactions between the various aspects of the environment already assessed in this EIS. 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 EIS being placed on both axes of a matrix, and therefore, each potential interaction is identified twice.

Table 12.1 Interaction Matrix

	Phase	Human Beings	Flora & Fauna	Soils & Geology	Hydrology & Hydrogeology	Air & Climate	Noise	Landscape	Cultural Heritage	Material Assets
Human Beings	C	Negative	No Effect	No Effect	Negative	Negative	Negative	Negative	No Effect	Negative
	O	Negative	No Effect	No Effect	No Effect	Positive	Negative	Neutral	No Effect	Negative
Flora & Fauna	C	No Effect	Negative	Negative	Negative	Negative	No Effect	Negative	No Effect	No Effect
	O	No Effect	Negative	No Effect	Negative	Positive	No Effect	Neutral	No Effect	No Effect
Soils & Geology	C	No Effect	Negative	Negative	Negative	Negative	No Effect	No Effect	No Effect	No Effect
	O	No Effect	No Effect	Negative	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
Hydrology & Hydrogeology	C	Negative	Negative	Negative	Negative	No Effect	No Effect	No Effect	No Effect	No Effect
	O	No Effect	Negative	No Effect	Negative	No Effect	No Effect	No Effect	No Effect	No Effect
Air & Climate	C	Negative	Negative	Negative	No Effect	Negative	No Effect	No Effect	No Effect	Negative
	O	Positive	Positive	No Effect	No Effect	Negative	No Effect	No Effect	No Effect	No Effect
Noise	C	No Effect	No Effect	No Effect	No Effect	No Effect	Negative	No Effect	No Effect	No Effect
	O	No Effect	No Effect	No Effect	No Effect	No Effect	Negative	No Effect	No Effect	No Effect
Landscape	C	Negative	Negative	No Effect	No Effect	No Effect	No Effect	Negative	No Effect	No Effect
	O	Neutral	Neutral	No Effect	No Effect	No Effect	No Effect	Negative	No Effect	No Effect
Cultural Heritage	C	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	Negative	No Effect
	O	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	Negative	No Effect
Material Assets	C	Negative	No Effect	No Effect	No Effect	Negative	No Effect	No Effect	No Effect	Negative
	O	Negative	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	Negative

Legend:

No Interacting Effect:		Positive Effect:	
Neutral Effect:		Negative 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 Environmental Impact Statement (EIS) were not carried out by McCarthy Keville O’Sullivan, the entire project and all the work of all sub-consultants was managed and coordinated by the company. This EIS was edited and collated by McCarthy Keville O’Sullivan, as an integrated report of findings from the impact assessment process, by all relevant experts, and effects that potentially interact have been assessed in the individual chapters of the EIS above.

12.2 Effect Interactions

12.2.1 Human Beings

Human Beings, Population and Human Health and Air & Climate / Noise

As identified in Chapter 4 of this EIS, the construction phase has the potential to generate noise and dust, which could create a temporary nuisance for occupants of nearby dwellings and businesses and this can be mitigated to acceptable levels. During the operational phase the proposed development has very limited potential to generate noise.

During the operational phase, the proposed route will provide a more sustainable form of transport, thereby having a positive effect on climate.

Human Beings, Population and Human Health and Hydrology & Hydrogeology

As described in Chapter 7 of this EIS, the construction phase of the proposed development has the potential to give rise to some water pollution as a result of site activities, and any water pollution could have a potential significant effect on other users of that water within the catchment. Mitigation measures are also detailed in Chapter 7 to minimise the risk of any such issues.

Human Beings, Population and Human Health and Material Assets

Chapter 11 of this EIS discusses how the construction phase of the project will give rise to traffic movements, and is likely to create some short-term inconvenience for other road users on a temporary basis.

Human Beings, Population and Human Health and Landscape

The construction phase of the proposed development will see the temporary introduction of construction machinery into a natural landscape. Whether the long-term change in landscape created by the construction and operation of the Blueway is negative or positive is subjective. The proposed design has however been sympathetic to the landscape and potential visual impacts are generally slight.

12.2.2 Flora and Fauna

Flora & Fauna and Soils & Geology

The extraction of soils and subsoils along the site for use as part of the proposed development will give rise to habitat loss and some disturbance of fauna in the areas surrounding the footprint of the site. This overburden will however be used for the placement of verges along the route.

Flora & Fauna and Hydrology & Hydrogeology

Site activities during the construction phase have the potential to give rise to some water pollution, and consequential indirect effects (such as disturbance and deterioration of habitat quality) on flora and fauna that use that water within the same catchment.

The site activities during the construction phase, and continuing on for the operational phase, will give rise to additional localised drainage, which has the potential to have a generally imperceptible effect on flora and their associated habitats.

Flora & Fauna and Air & Climate

Site activity during the construction phase could give rise to noise that could be a temporary nuisance for fauna.

Flora & Fauna and Landscape

The removal of some vegetation within the development footprint and surrounding areas is likely to result in a change to the visual landscape during the construction phase, which will become part of the normal landscape of the wider area for the duration of the operational phase.

12.2.3 Soils and Geology

Soils & Geology and Hydrology & Hydrogeology

As identified in Chapter 6 of this EIS, the movement and removal of soils, overburden and rock during the construction phase has the potential to have an effect on water quality. The excavation of the path and other works areas has the potential to intercept larger volumes of drainage water however the majority of the path is porous and in

general the foot print is very small in the context of the catchment and sub-catchments. Mitigation measures are presented in Chapter 7.

Soils & Geology and Air & Climate

The movement and removal of soils and overburden during the construction phase has the potential to give rise to dust effects (as described in Chapter 7 of this EIS), which could in turn reduce the local air quality.

12.2.4 Air and Climate / Noise

Material Assets & Air & Climate

The movement of construction 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 11 of this EIS, and mitigation measures are presented to minimise any potential effects.

12.2.5 Landscape

Landscape and Cultural Heritage

As described in Chapter 10 of this EIS, the proposed development has the potential to change the landscape setting of recorded sites and monuments in proximity to the site. Effects on the setting of a site may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the proposed development may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact on the setting of a monument, and further details of the methods used for the proposed development are given in Chapter 10.

12.3 Mitigation and Residual Effects

Where any potential interactive negative effects have been identified in the above, the project design including a full suite of appropriate mitigation measures have already been included in the relevant sections (Chapters 3-11) of the EIS. The implementation of the design and these mitigation measures will reduce or remove the potential for these effects. Information on potential residual effects, and their significance, is also given in each chapter.