



ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

KERRY COUNTY COUNCIL

ENVIRONMENTAL IMPACT ASSESSMENT REPORT / ENVIRONMENTAL IMPACT STATEMENT FOR THE SOUTH KERRY GREENWAY, CO. KERRY

VOLUME 2 – MAIN EIAR/EIS

CHAPTER 16 – INTERACTIONS OF THE FOREGOING

AUGUST 2018



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16 1 INTERACTIONS OF THE FOREGOING

16.1 Introduction

This chapter considers the potential for interactions and inter-relationships between the aspects of the environment, that were examined individually throughout this EIAR/EIS, which could result in an impact being either positive or negative, as well as having varying levels of significance. The preceding chapters of this EIAR/EIS identified the potential impacts that may occur as a result of the proposed development in terms of Population, Human Health and Material Assets, Air Quality and Climate, Roads, Traffic and Transport, Noise and Vibration, Biodiversity, Soils, Geology and Hydrogeology, Hydrology and Water Quality, Landscape and Visuals, and Archaeology, Architecture and Cultural Heritage. As well as potential impacts, mitigation measures are set out throughout the preceding chapters.

For a project of this nature, there is also the potential for interaction amongst these impacts that may not be perceived when examined individually. Therefore, it is necessary to consider the relationships between the impacts. The result of interactive impacts may either exacerbate the magnitude or ameliorate the extent of impact. The numerous interactions and inter-relationships that have been identified for the proposed development with respect to the various aspects of the environment are discussed, where relevant, in this chapter.

Table 16.1 herein provides a matrix indicating the key interactions and inter-relationships between the aforementioned environmental aspects of the proposed greenway development. Table 16.2 provides further detail and examples of the diverse range of interactions and inter-relationships between the project's key environmental aspects.

Table 16-1: Summary of Interactions & Inter-relationships between the Key Environmental Aspects of the proposed greenway

	Population, Human Health & Material Assets	Air Quality & Climate	Roads, Traffic & Transport	Noise & Vibration	Biodiversity	Soils, Geology & Hydrogeology	Hydrology & Water Quality	Landscape & Visual	Archaeological, Architectural & Cultural Heritage
Population, Human Health & Material Assets									
Air Quality & Climate									
Roads, Traffic & Transportation									
Noise & Vibration									
Biodiversity									
Soils, Geology & Hydrogeology									
Hydrology and Water Quality									
Landscape & Visual									
Archaeological, Architectural & Cultural Heritage									



= interaction or inter-relationship



= no interaction or inter-relationship

Table 16-2: Table of Interactions

INTERACTION	DESCRIPTION
Traffic & Transport, Noise & Vibration, Air Quality & Climate, Population & Human Health	During the construction phase of the Greenway development there is possible interaction between impacts from noise, dust and traffic on Population, Human Health and Material Assets. Increased traffic movements associated with construction, construction machinery and the construction process, such as loading and tipping, can create noise and dust nuisance to nearby receptors effecting human health, residential amenity, recreation amenity and nearby farm animals as well as having a potential impact on the local economy. These impacts have been reviewed individually in the EIAR/EIS and are considered significant temporary impacts in terms of noise. Impacts to air quality are considered negligible.
Traffic & Transport, Human Health	Traffic associated with the construction phase could have a negative impact on local roads causing safety issues due to soiling. This could occur where traffic leaving a construction site along the greenway were to carry exposed soil on their wheels resulting in the migration of soil to the public road. This could affect skid resistance for local road users. This interaction of impacts has been considered in the EIAR/EIS to be temporary in duration and to have not significant to slight impacts if unmitigated.
Traffic & Transport, Noise & Vibration, Population & Human Health	Vibration caused by increased volumes of traffic during the construction phase and vibration caused by construction machinery could have a negative effect on nearby sensitive receptors effecting residential amenity. As set out in the EIAR/EIS, due to the distance of construction work from receptors and its temporary nature, vibration caused by increased traffic and construction activities will not have a significant impact on the nearest sensitive locations.
Traffic & Transport, Noise & Vibration, Biodiversity	The combination of impacts from increased traffic and noise due to the construction phase could also have an effect on breeding fauna. These impacts are considered in the EIAR/EIS to be minimal due the temporary and linear nature of works.
Soil, Water Quality, Biodiversity	Exposed earth associated with excavation during the construction phase could affect water quality due to sediment run-off at exposed areas causing sediment concentration in watercourses. This could have an in-combination effect on aquatic ecology downstream. Water quality could also be affected due to spillage of hydrocarbon fuels or hydraulic fuels if mismanaged during the construction phase and produce negative impacts on aquatic ecology. Construction machinery could also negatively impact water quality and aquatic ecology in nearby water courses due to increased surface run-off caused by soil compaction. These in-combination impacts have been considered in the EIAR/EIS to have short-term, moderate – slight impacts if unmitigated. Exposed silt which could migrate to the public road via construction machinery and traffic could discharge into roadside drainage effecting watercourses. This could also occur due to vehicle cleaning facilities. These potential impacts to water quality have been considered in the EIAR/EIS and are not considered to exceed a minor impact.
Traffic & Transport, Noise & Vibration, Cultural Heritage	During the construction phase vibration due to increased traffic and construction works has the potential to impact on un-recorded, sub-surface features of archaeological significance. The potential impacts cannot be quantified; however, the archaeological potential of the area is considered to be low.
Landscape & Visual Impact and Population and Human Health	The construction and operation of the greenway has the potential to impact views and the landscape. In terms of landscape the significance of impacts will not be significant and the visual significance varied from imperceptible to moderate slight.
Landscape and Visual & Cultural Heritage	The repair of the viaducts will result in a moderate positive impact in terms of cultural heritage and will result in a positive impact visually.

INTERACTION	DESCRIPTION
	In terms of the remains of the railway line, the development will have a moderate positive impact on the remains of the railway line and its associated features.
Population & Human Health, Noise & Vibration, Biodiversity	Localised disturbance to fauna may occur at the operational phase of this development due to human activity. Impacts have been considered in the EIAR/EIS to have an imperceptible temporary negative effect as they are confined to a short space of time and only likely during daylight, whereas many of the mammals recorded in the area are active at night time.
Soil, Hydrology & Water Quality, Cultural Heritage	Lack of maintenance and management of drainage channels due to silt build up and lack of vegetation control has caused negative impacts on the disused railway line which holds local cultural significance. The development of the greenway would have a moderate positive direct impact on the remains of the railway line such as the Cahersiveen Railway Bridge and associated features due to the interventions involved with the greenway development which will include vegetation control, cleaning of surfaces, improvements of drains and ongoing maintenance.
Traffic & Transport, Air Quality & Climate, Population & Human Health	The operational phase of the proposed development will bring positive impacts to the area with improvement of human health through encouraged exercise and improvement to air quality due to a reduction of car use. This is considered in the EIAR/EIS to be a beneficial impact.
Air Quality & Climate, Biodiversity	The increase in traffic in particular at car parks has the potential to impact air quality and in turn biodiversity. The potential impacts on air quality have been assessed and any impacts will be negligible, and all air quality standards will be met. Therefore, there will be a negligible impact on biodiversity.
Population, Human Health and Material Assets; Soils, Geology and Hydrogeology	The potential for impacts to groundwater wells was assessed in the EIAR/EIS and it was found that excavations will be relatively shallow, and dewatering would be temporary during construction and as a result there would be no impact on local wells.
Traffic and Transportation, Hydrology & Water Quality	There is potential for increased run-off from new roads and car parks and for contamination of watercourses from run-off; however, the use of petrol interceptors will minimise impacts. Run-off from the proposed development will have a negligible increase and a monitoring and maintenance programme will be implemented to alleviate flood risk during the construction, operation and maintenance of the proposed development.

16.2 Conclusions on the Development Interactions and Inter-Relationships and their Impacts in Context

As outlined above, the proposed greenway development has the potential to impact on various environmental aspects, with interactions and inter-relationships between these aspects as described above. The EIAR/EIS has considered these interactions and inter-relationships throughout the appraisal, firstly through the design and layout of the proposed greenway, to avoid impacts where possible, and also in the definition of suitable mitigation measures to minimise the impacts.

In summary, based on the long-term positive impacts of the proposed development, and the low level of negative impacts (as mitigated, where required), it is considered that the proposed South Kerry Greenway will not have a significant impact on the receiving environment.