

16.0 INTERACTIONS

16.1 INTRODUCTION

This chapter of the EIA Report addresses potential interactions and inter-relationships between the environmental factors discussed in the preceding chapters. This covers both the construction and operational phase of the proposed development.

In the main, the majority of EIA Report chapters have already included and described assessments of potential interactions between aspects however this section of the assessment presents a summary and assessment of the identified interactions.

These interactions have been identified and considered by the various specialists contributing to this impact assessment.

16.2 DISCUSSION – POSITIVE IMPACTS

The reasoning behind the interactions that are considered to have a positive effect (i.e. a change which improves the quality of the environment) is outlined in this section.

Planning and Alternatives on:

Population and Human Health

The Clonshaugh 110kV transmission cable installation will be designed to support current power demand and future growth within the Clonshaugh area inclusive but not limited to the power requirements for the existing, proposed and future development within the site data storage facility for the former Diamond Innovations site (Unit 1C), Clonshaugh Business & Technology Park and adjacent lands.

The proposed development will create between 10-30 temporary jobs during the construction phase, which will have a temporary, positive, imperceptible effect on employment and business in the Dublin /Fingal areas.

16.3 DISCUSSION – NEUTRAL IMPACTS

The reasoning behind the interactions that are considered to have a neutral effect (i.e. no effects or effects that are imperceptible, within the normal bounds of variation or within the margin of forecasting error) is outlined in this section.

Land, Soils, Geology and Hydrogeology on:

Population and Human Health

The construction of the proposed development will require site preparation, excavations and levelling works from the existing Belcamp 220kV Substation to the permitted Darndale 110kV Substation located at the former Diamond Innovations site (Unit 1C), Clonshaugh Business & Technology Park, and adjacent lands, Dublin 17. As the site for development runs through land which is not used (in full or in part) for agricultural use and is mostly within roadway, there will be no localised loss of farmland. As such, the effect is **long-term, imperceptible** and **neutral**.

Hydrology

The main potential impact of the construction works proposed is on surface water quality due to sediment laden run-off, material spillages and also the crossing of the River Mayne to provide access for the cable installation to the Belcamp substation. The use of a dam and overpumping will minimise impact during short term construction works and avoid the

potential for direct release of any contaminants or suspended solids. The implementation of a Construction Environmental Management Plan (CEMP) as detailed in Section 5.6.2 of Chapter 5 (Hydrology) will also ensure that any construction effects on the hydrology of the site will be **temporary, imperceptible** and **neutral**.

Biodiversity

As detailed in Chapter 7 (Biodiversity), there are no rare or protected habitats recorded in the study area inside the site boundary. The proposed development area may be considered of Low Local Ecological Value. The predicted effects on biodiversity are **neutral** and **imperceptible** for the construction and operational phases.

Air Quality and Climate

There is a potential for the construction activity to impact on air quality in terms of dust generated but mitigation measures outlined in Chapter 8 (Air Quality & Climate) of this EIA Report, implemented through the CEMP will ensure a **temporary, imperceptible** and **neutral** effect. There is no impact during operation.

Archaeological, Architectural and Cultural Heritage

The archaeological, architectural and cultural heritage assessment for the proposed development indicated that there are two features of archaeological potential within the site. As such, ground disturbance during the construction phase has the potential to impact on these features. However, mitigation measures detailed in Section 11.6.1 of Chapter 11 (Archaeological, Architectural and Cultural Heritage), will ensure that the effect is **long-term, imperceptible** and **neutral**.

Waste Management

As detailed in Chapter 14 (Waste Management), c. 48,840m³ of excavated soil and stone may be generated from the construction of the route. The majority of soil & stone will need to be removed off-site either as a waste or, where appropriate, as a by-product. The management of waste during the construction phase in accordance with the Construction & Demolition Waste Management Plan (C&D WMP) will meet the requirements of regional and national waste legislation and promote the management of waste in line with the priorities of the waste hierarchy. Therefore, the effect of generation of soils/stones in terms of waste management will be **neutral**.

Hydrology on:

Population and Human Health

No wastewater will be generated from the proposed development therefore the effect of the proposed development is considered to be **neutral**.

Land, Soils, Geology and Hydrogeology

Surface water run-off collected in excavations during the construction phase of the proposed development will be pumped out and treated prior to discharge (Ref. to Section 5.4.1 in Chapter 5 Hydrology). The effect will be **short-term, imperceptible** and **neutral**.

Biodiversity

The proposed development will potentially result in discharge of stormwater from open trenches, but this will be pumped out and treated prior to discharge (Ref. to Section 5.4.1 in Chapter 5 Hydrology).

There is no formal designation on the proposed development lands and the development area may be considered of Low Local Ecological Value. The predicted effect will be **long-term, imperceptible** and **neutral**.

Air Quality and Climate on:

Hydrology

Mitigation measures implemented during the construction phase will ensure that the deposition of dust is minimised and therefore the predicted effect from air (including dust) on the water environment during construction is **short-term, imperceptible** and **neutral**.

Biodiversity

Mitigation measures during the construction phase of the proposed development will ensure that dust generation is minimised and the effect on biodiversity will be **short term, imperceptible** and **neutral**.

Population and Human Health

The mitigation measures that will be put in place at the proposed development for the construction phase will ensure that the impact of construction dust emissions in the form of nuisance dust soiling or human health effects are **short-term** and **imperceptible**. Further detail on human health and air quality is presented in Chapter 4.

Noise and Vibration on:

Population and Human Health

The potential impact of noise and vibration on the local population is discussed in Chapter 4 (Population and Human Health) and Chapter 9 (Noise & Vibration). Noise emissions associated with the construction phase of the development are expected to be less than the prevailing ambient noise level at the nearest sensitive locations. In addition, due to the distance between the site and the nearest sensitive locations, vibration impacts generated during construction are expected to be **negligible**. There will be no operational noise and therefore, there will not be a significant impact on human health.

Landscape and Visual on:

Population and Human Health

The predicted impact of the proposed development on the landscape is described in Chapter 10. The proposed development is primarily located within existing road and will be completed below ground and as such is integrated into its setting. Landscape and visual effects will be **imperceptible**, will be **long-term**, and will be **neutral**.

Material Assets on:

Population and Human Health

The proposed development will not have a significant impact on material assets such as surface water drainage, water supply, wastewater drainage, power supply and road infrastructure. The individual chapters of this EIA Report (Chapter 12 Traffic and Transportation and Chapter 13 Material Assets) have assessed the capacities of the available infrastructure to accommodate the proposed development and the implementation of the mitigation measures proposed will ensure there are no negative impacts on the local population. The predicted effect is therefore **imperceptible to not significant** and **neutral**.

16.4 DISCUSSION – NEGATIVE IMPACTS

The reasoning behind the interactions that are considered to have a negative effect (i.e. a change which reduces the quality of the environment) is outlined in this section.

Land, Soils, Geology and Hydrogeology on:

Noise and Vibration

Due to the existing geological profile at the site and the depth to bedrock as described in Chapter 6, rock breaking activities will not be required. The impact on the noise environment due to excavation activities will be transient in nature and mitigation measures outlined in Chapter 9 (Noise & Vibration) will be implemented to minimise the impact of construction activities on the noise environment. The predicted impact of construction noise is **slight, negative** and **temporary - short term** in nature. It is considered that as construction progresses from initial ground works that construction noise and vibration impacts will be greatly reduce from slight to **not significant**. There is no impacts during operation.

Landscape and Visual on:

Traffic and Transportation

The establishment of site enclosures, construction traffic access routes, construction vehicular activity, site lighting and temporary traffic management regimes will cause disruption during the construction of the proposed development. The landscape and visual impact during the construction stage will be **negative, slight** and **temporary**.

16.5 SUMMARY

In summary, the interactions between the environmental factors and impacts discussed in this EIA Report have been assessed and the majority of interactions are **neutral**.