

CHAPTER 17

INTERACTIONS



17.0 INTERACTIONS

17.1 INTRODUCTION

- 17.1 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 demolition/construction and operational phase of the proposed development.
- 17.2 This chapter has been produced following the guidance within, the EIA Directive, the *Planning and Development Act 2000* (as amended), the *EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports 2022* and *EPA Draft Advice Notes for Preparing Environmental Impact Statements 2015*.
- 17.3 In accordance with the guidance not only are the individual significant impacts required to be considered when assessing the impact of a development on the environment, but so must the interrelationships between these factors be identified and assessed.
- 17.4 The majority of the EIA Report chapters have already included and described assessments of potential interactions between aspects, considered by the various specialists contributing to this impact assessment as inherent aspects of their methodology. The quality, magnitude and duration of potential impacts are defined in accordance with the criteria provided in the EPA 2022 Guidance as outlined in Chapter 1. This section of the assessment presents a summary and assessment of the identified interactions.
- 17.5 Section 171A of the Planning and Development Act requires that the interactions between the following be assessed:
- population and human health;
 - biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive;
 - land, soil, water, air and climate; and
 - material assets, cultural heritage and the landscape;

17.2 DISCUSSION – POSITIVE IMPACTS

- 17.6 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

- 17.7 The proposed development will create significant temporary direct and indirect employment during the demolition and construction phase, additionally, in the longer term the proposed development will provide positive yet not significant permanent direct and indirect employment. It will support economic development within the hinterland in which the development is located.
- 17.8 The proposed development will provide 457 residential units to the Dublin area which will have a significant positive impact upon the current housing crisis.

Landscape

- 17.9 The existing site currently offers no landscape value. The proposed development will significantly and positively directly increase the landscape value of the subject site and will also provide indirect positive landscape impacts to the neighbouring lands and the people who use them.

Landscape on:

Biodiversity

- 17.10 A commentary will be provided on the possibility for increased biodiversity within the lands due to the proposed landscaping measures. The long-term effects of the proposed development will have a positive effect on the areas through the increase of tree canopy and vegetation.

17.3 DISCUSSION – NEUTRAL IMPACTS

- 17.11 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.

Hydrology on:

Population and Human Health

- 17.12 The operational development will impact on stormwater and foul wastewater which have the potential to impact on human health if not adequately managed. Stormwater generated on site will be discharged at controlled rates through the use of sustainable urban drainage systems (SuDS) which will reduce the risk of flooding and management of water quality as a result of the development. The foul sewer will discharge to the wastewater treatment plant at Ringsend. The Ringsend treatment plant is licenced by Irish Water and is soon to be upgraded and will provide appropriate treatment for wastewater emissions.

Biodiversity

- 17.13 There is potential for impacts to biodiversity associated with uncontrolled discharges to surface waters. In this instance the surface water system, and the foul water provision discharges to Ringsend WWTP has an indirect hydrological connection with a number of nationally and internationally important habitats. The use of standard demolition and construction control measures as provided in the outline CEMP and the sustainable urban drainage systems, along with the water treatment processes and monitoring of treated effluent at Ringsend will result in no potential for impact on biodiversity downstream of Ringsend WWTP. The impact upon biodiversity from hydrological impacts would be long-term and neutral.

Land, Soils, Geology and Hydrogeology on:

Population and Human Health

- 17.14 There will be a loss of industrial/warehousing land for economic use due to the development. However, within the overall context of Irelands available industrial land, and the strategic decision to open these lands to alternative uses other than industrial during the last development plan re-zoning, the loss is considered negligible. In

addition, the employment created by the demolition and construction of the proposed development counterbalances this economic loss to some extent and so the impact is long-term, imperceptible and neutral.

Hydrology

- 17.15 The use of SuDS and attenuation will mean that the development will result in neutral water impacts in the operational phase with regard to runoff rates and flooding risk.

Air Quality

- 17.16 Demolition and construction phase activities such as land clearing, excavations, stockpiling of materials etc. have the potential for interactions between air quality and land and soils and the water environment (hydrology) in the form of dust emissions. With the appropriate mitigation measures to prevent fugitive dust emissions, it is predicted that interactions between air quality and land and soils and hydrology will be short-term and imperceptible.

Air Quality and Climate on:

Biodiversity

- 17.17 Dust emissions have the potential to settle on plants causing impacts to local ecology. 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

- 17.18 An adverse impact due to air quality in either the construction or operational phase has the potential to cause health and dust nuisance issues. The mitigation measures that will be put in place at the proposed development will ensure that the impact of the proposed development complies with all ambient air quality legislative limits and therefore the predicted impact is short-term, negative and imperceptible with respect to the construction phase and long-term, neutral and imperceptible with respect to the operational phase in terms of human health impacts.

Traffic on:

Air Quality

- 17.19 Interactions between air quality and traffic can be significant. With increased traffic movements and reduced engine efficiency, i.e. due to congestion, the emissions of vehicles increase. The impacts of the proposed development on air quality are assessed by reviewing the change in annual average daily traffic on roads close to the site. In this assessment, the impact of the interactions between traffic and air quality are considered to be imperceptible.

Noise

- 17.20 Based on the proposed scale of the demolition and construction activity, the number of workers on site each day and the existing level of traffic on the Swords Road, the additional traffic introduced onto the local road network due to the construction phase of the proposed development will not result in sufficient enough changes in traffic to generate a perceptible noise impact. An increase in noise level of less than 3 dB is

considered negligible or not significant (DMRB and EPA). It is therefore considered that increased traffic during the construction phase will not result in a significant noise impact.

Landscape and Visual on:

Archaeological, Architectural and Cultural Heritage

- 17.21 The operational phase of the development will not impact directly on any archaeological, architectural or cultural heritage sites or features.

Material Assets & Waste on:

Population and Human Health

- 17.22 The proposed development will have an impact on material assets such as surface water drainage, water supply, wastewater drainage, power supply and road infrastructure. Chapters 15 and 16 (Material Assets and Waste) have reviewed the capacities of the available infrastructure to accommodate the proposed development and the implementation of the mitigation measure proposed in these chapters will ensure there are no residual negative impacts on the local population. The predicted effect is therefore imperceptible to not significant and neutral.

Hydrology

- 17.23 The use of SuDS during operations will mean that the development will result in neutral water impacts in the operational phase with regard to runoff rates and flooding risk. As a part of the SuDS features, it is anticipated that small amounts of hydrocarbon sludge waste and debris may be generated in the hydrocarbon interceptors which will treat the surface water run-off. This waste stream will be managed in accordance with the relevant legislation identified in Chapter 16 such that the effect of the waste generation will be long-term, imperceptible and neutral.

17.4 DISCUSSION – NEGATIVE IMPACTS

- 17.24 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.

Landscape and Visual on:

Population and Human Health

- 17.25 In general, the proposed development will represent an intensification of the built urban landscape that will be consistent with the emerging trend in the locality and with the land use zoning for the area. The landscape and visual impact associated with human beings is focused on the effects on dwellings. The size and quality of the public amenity space and planting along the boundaries and within the public realm will have a small ameliorative effect at ground level, but due to the height of the proposed development, many visual impacts will persist, however the majority will not be significant. Three vantage points will be deemed to have imperceptible negative visual impacts with one view-point on Shanliss Avenue experiencing a moderate negative visual impact.

Land, Soils, Geology and Hydrogeology on:

Noise

- 17.26 The demolition, land clearance, excavation and construction give rise to the potential for the maximum permissible daytime noise level to be exceeded at distances up to 30 m from the subject lands. This indicates that additional mitigation measures may be required to prevent likely significant impacts at the residential properties to the west. Provided that the relevant mitigation measures are employed during the construction phase, it is anticipated that impacts will be short-term, negative and slight.

17.5 SUMMARY

- 17.27 In summary, the interactions between the environmental factors and impacts discussed in this EIAR have been assessed and the majority of interactions are neutral. While there will be a moderate visual impact to some houses on Shanliss Avenue future visitors to the development will perceive the development in positive terms due to the context and the quality of the public realm and proposed buildings. The proposed development will create significant residential capacity which will have a positive benefit within the hinterland in which the development is located.