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TABLES

INTRODUCTION

15.1 All of the reasonably predictable significant impacts of the proposed development and the measures in place to mitigate them have been outlined in preceding chapters of this EIAR. However, for any development with the potential for significant environmental impact there is also the potential for interaction amongst these impacts. The result of these interactions may either exacerbate the magnitude of the impact or ameliorate it. The interaction of impacts on the surrounding environment needs to be addressed as part of the Environmental Impact Assessment process.

15.2 This Environmental Impact Assessment Report was prepared by SLR Consulting on behalf of Kilsaran Concrete as an integrated document, rather than a collection of separate reports.

15.3 The interaction between the various environmental topics has been covered within each of the EIAR Chapters 4 through to 14, where relevant. For example, the interaction of geology and groundwater has been addressed in EIAR Chapter 7.

15.4 The environmental components which might potentially be impacted by a development of this kind and at this location have been identified through the site assessment as follows:

- Effects on land use and amenity;
- Impacts on local sensitive receptors;
- Loss of natural heritage and wildlife habitats and disturbance to flora and fauna;
- Impacts on groundwater, soils and bedrock geology;
- Nuisance potential and/or public health effects due to noise, dust, traffic or light emissions;
- Impacts on local archaeology;
- Change in landscape and visual character;
- Impacts on material assets such as infrastructure or local utilities.

15.5 A matrix method has been used, in which the environmental components addressed in the previous Chapters of this EIAR have been placed on both axes of a matrix. These interactions are summarised in Table 15-1 below.

15.6 The purpose of the effects matrix is to identify potential interactions. Actual interactions and their significance are dealt with in the relevant Chapter of the EIAR. A brief overview of some of the more pertinent interactions is provided in this Chapter.

Table 15-1
Impact Interaction and Interrelationships Matrix

	Biodiversity	Land Soils and Geology	Water	Air Quality	Noise and Vibration	Landscape and Visual	Traffic	Cultural Heritage	Population and Human Health
Biodiversity									
Land, Soils and Geology									
Water									
Air Quality									
Noise and Vibration									
Landscape and Visual									
Traffic									
Cultural Heritage									
Population and Human Health									

POTENTIAL INTERACTIONS

Population and Human Health

15.7 According to published EPA guidelines, consideration of human health for EIA purposes should be in the context of the relevant environmental topics addressed by the EIAR. Specifically, effects on human health should be considered in relation to relevant pathways (such as air, soil and water) and in the context of acceptable standards or limits for exposure, dose or risk.

15.8 The assessments presented in the EIAR conclude that the continuation of soil backfilling and recovery activities at the application site would not give rise to any future noise and dust emissions in excess of acceptable limits and that any potential effects on soil (land) and water would continue to be addressed through good site / environmental management practices and implementation of mitigation measures to avoid accidental spillages of fuel, etc..

15.9 The key matters to be addressed in relation to amenity are noise, dust, vibration, landscape and traffic. As indicated above, the EIAR concludes that the continuation of

activities at the existing facility will not result in any excessive emissions of noise or dust above acceptable / permitted limits. The restoration of the former pit to its original landform is deemed to be beneficial when compared against the original / existing baseline – refer to EIAR Chapter 13 (Landscape).

Biodiversity

15.10 Potential interactions of continued backfilling and recovery activities, between biodiversity and/or ecological features and other environmental media, are discussed in Chapter 7 (Water), Chapter 8 (Air), Chapter 10 (Noise) and Chapter 13 (Landscape) . The relevant ecological designations to be considered within each of those assessments has been identified and potential for impacts has been assessed.

Land, Soils and Geology

15.11 The ongoing (and continued future) backfilling and restoration of the lands at the application site using imported soils and the potential interactions with other environmental media / receptors are discussed in Chapter 5 (Biodiversity), Chapter 7 (Water), Chapter 12 (Cultural Heritage) and Chapter 13 (Landscape).

Water

15.12 Potential interactions of continued backfilling and recovery activities between water (specifically groundwater) and other environmental media / receptors are discussed in Chapter 5 (Biodiversity), Chapter 6 (Land, Soils and Geology).

Air Quality

15.13 The Air Quality impact assessment presented in EIAR Chapter 8, indicates that with the implementation of industry standard air quality mitigation measures, no significant residual impacts will arise from the continued backfilling and recovery activities at the application site. The potential interaction of impacts is not therefore considered to be significant.

15.14 The interaction of Air Quality with other environmental media / receptors is considered in Chapter 4 (Population and Human Health), Chapter 5 (Biodiversity) and Chapter 9 (Climate). The predicted traffic impacts, which could have a knock-on effect on air quality, are considered in the air quality chapter.

Noise and Vibration

15.15 The Noise impact assessment presented in EIAR Chapter 10, indicates that with the implementation of industry standard noise mitigation measures, no significant residual noise impacts will arise from the continued backfilling and recovery activities at the application site. The potential interaction of impacts is not therefore considered to be significant.

15.16 The potential noise / vibration impacts of the proposed development have been assessed at the locations of local receptors and used to inform the assessment of impacts on Population and Human Health (in Chapter 4).

15.17 Noise impacts at sites of designated ecological value have been addressed in Chapter 5 (Biodiversity). Potential noise impact generated by traffic sources are considered in the noise chapter.

Landscape and Visual

15.18 The proposed final landform and the landscape mitigation and restoration proposals have considered the potential interaction with local populations (Chapter 4), Biodiversity (Chapter 5), Land, Soils and Geology (Chapter 6) and Cultural Heritage (Chapter 12).

Traffic

15.19 Potential interactions between traffic movements arising from planned continuation of backfilling and recovery activities at the application site have been considered in EIAR Chapter 4 (Population and Human Health), Chapter 8 (Air Quality) and Chapter 10 (Noise).

Cultural Heritage

15.20 The potential for discovery of previously unknown subsurface archaeological deposits or finds is discussed in EIAR Chapter 12 (Cultural Heritage) and deemed to be very limited given the advanced stage of development ongoing at the site.

15.21 The main potential for interactions of effects in relation to cultural heritage is in relation to landscape and visual effects such as impacts on the setting of cultural heritage features. This potential interaction is addressed in EIAR Chapter 13 (Landscape)