

22.0 INTERACTION OF THE FOREGOING.

22.1 Introduction.

22.1.1 The following are the key likely interactions of impacts.

22.2. *Noise and Vibration & Material Assets –Transportation, Traffic and Parking.*

22.2.1 The Draft Planning Scheme requires that a site specific Transport Impact Assessment be prepared in support of Applications for Certification. The TIA will include an assessment of the volume of construction traffic, construction method and materials that will be used along with the origin and type of transport vehicle. If necessary, the TIA will identify mitigation measures to ensure there is no unacceptable impact on noise and vibration arising as a result of traffic.

22.2.2 The interrelationship between transportation, traffic and parking and its effects on the ambient noise environment is fully described in Chapter 13 – Noise & Vibration. To summarise, there will be a negligible impact on ambient noise levels arising from traffic and parking associated with the proposed scheme.

22.3 *Air Quality & Material Assets –Transportation, Traffic and Parking.*

22.3.1 The Draft Planning Scheme requires that a site specific Transport Impact Assessment be prepared in support of Applications for Certification. The TIA will include an assessment of the volume of construction traffic, construction method and materials that will be used along with the origin and type of transport vehicle. If necessary, the TIA will identify mitigation measures to ensure there is no unacceptable impact on air quality arising as a result of traffic

22.3.2 The effects of traffic generated as a result of the proposed scheme has been assessed and its (traffic from scheme alone) impact on air quality is not significant especially with the mitigation measures proposed in chapter 9.

22.3.3 The interrelationship between the traffic, transportation and parking and its effects on the ambient air environment is therefore fully described in the EIS.

22.4 *Flora and Fauna & Material Assets –Transportation, Traffic and Parking.*

22.4.1 The Draft Planning Scheme requires that a site specific Transport Impact Assessment be prepared in support of Applications for Certification. The TIA will include an assessment of the volume of construction traffic, construction method and materials that will be used along with the origin and type of transport vehicle. If necessary, the TIA will identify mitigation measures to ensure there is no unacceptable impact on flora and fauna arising as a result of traffic.

22.4.2 The effects of traffic generated as a result of the Draft Planning Scheme has been assessed and its impact on air quality is not significant. Thus, indirect impacts of traffic connected with the draft planning scheme on fauna through air quality will not be significant. It is not predicted that there are or will be exceedances of the NOx annual average limit for vegetation throughout the full area of the SPA or cSAC. Protected bird species which use the Planning Scheme Area or the adjacent designated areas will become habituated to increased traffic in the area (as is the case in other parts of Dublin Bay) and will not be disturbed by it.

22.5 *Material Assets –Transportation, Traffic and Parking & Material Assets – Retail.*

22.5.1 The Draft Planning Scheme requires that a site specific Transport Impact Assessment be prepared in support of Applications for Certification. The TIA will include an assessment of the volume of construction traffic, construction method and materials that will be used along with the origin and type of transport vehicle. If necessary, the TIA will identify mitigation measures to ensure there is no unacceptable impact on retail arising as a result of traffic.

22.5.2 The level of accessibility, which is dependent on the transportation infrastructure, impacts on the viability of retail developments. The location and availability of retail facilities in close proximity to residential and employment areas can reduce car dependency and average distance travelled, resulting in a positive impact on traffic. Retail will be supported by car parking facilities and an assessment of car parking requirements has been undertaken as outlined in Chapter 16. Retail facilities generate

vehicular trips which impact on traffic levels. The retail trip generation has been taken into account within this assessment, as described in Chapter 16.

22.6 Geotechnical, Soils and Ground Conditions & Water Quality.

22.6.1 Poolbeg's underlying bedrock lies approximately 30m below ground level. Soil conditions above the bedrock are likely to be very variable reflecting its man made nature and the contaminated materials contained within. Piling and other works to such ground conditions has the potential to release contaminated materials and leachates into existing water sources within and in proximity to the Draft Planning Scheme Area. Various mitigation measures will be put in place during the construction and operation of the Draft Planning Scheme to deal with any contaminated soil, land fill gases and leachate arising as a result of same. These have been identified above in the relevant chapters and the potential interaction of both impacts and mitigation measures already identified.

22.7 Noise and Vibration & Flora and Fauna.

22.7.1 Noise arising from piling and other construction activities has the potential to negatively impact upon the existing wildlife within the Draft Planning Scheme Area. Measures such as noise monitoring during construction will be carried out to ensure no adverse impact on such wildlife occurs. Such works can also be undertaken in appropriate times of the year where relevant fauna are not present.

22.8 Architectural Heritage, Archaeology & Construction Vibration.

22.8.1 Piling and other construction activities have the potential to negatively impact on listed structures and protected archaeological features in terms of vibrational impact. Measures such as monitoring during construction will be carried out to ensure that recommended vibrational limits expressed as peak particle velocities are not exceeded.

22.8.2 Soil conditions are likely to be very variable on the peninsula with soft material in the upper layers and high ground water tables. Rock is not likely to be encountered within 30m of the surface. Detailed site investigation will be required at design stage but it is likely that significant piling will be required for any new structures. Piling operations can lead to significant vibrations. De-watering could be a significant issue on many

sites particularly if deep excavations are required. This can lead to a draw down of the ground water in the surrounding area, potentially causing settlement under buildings. The use of heavy construction plant, and particularly rollers or vibrating rollers, may also cause ground vibrations. De-watering may also negatively affect waterlogged archaeological material such as ship timbers or fish traps.

- 22.8.3 All of the above can have significant impacts on structures particularly older buildings which may not be in good structural condition. The potential effect of the works on buildings will need to be rigorously assessed, and mitigation measures proposed, before any construction can proceed in the vicinity of protected structures or upstanding archaeological features.

22.9 Groundwater, Surface Water & Flora and Fauna.

- 22.9.1 The ecological functioning of the Bay and designated areas is in great part dependent on maintaining existing water quality. The measures to ensure water quality is not affected are listed in Chapters 7 and 8.

- 22.9.2 There is an existing surface water discharge to the Bay from the north-eastern corner of the Fabrizia site. The quality and quantity of this will be maintained in order to ensure no adverse impact on adjoining habitat in the Bay.

22.10 Air Quality & Flora and Fauna.

- 22.10.1 The NO_x annual average limit for vegetation has been exceeded at some of the monitoring stations (non listed sites) where monitoring was carried out for the Waste to Energy Project EIS. However, further detail in this regard was presented at the Waste to Energy oral hearing held in April 2008 and it is not predicted that there are or will be exceedances throughout the full area of the SPA or cSAC. The Draft Planning Scheme is not predicted to further impact in this regard.

- 22.10.2 An assessment of the impact of the draft planning scheme on air quality with reference to the Air Quality standards (AQSs) has been carried out. The ambient air quality is not predicted to exceed AQSs for the protection of human health within the Planning Scheme Area (Chapter 9). None of the protected fauna species occurring in the

Planning Scheme Area or adjacent designated areas is more sensitive to air quality than human beings hence no significant impacts of the Draft Scheme on fauna is predicted.

22.11 Flora and Fauna & Material Assets (Buildings).

- 22.11.1 A number of existing buildings within the Draft Planning Scheme Area may provide suitable habitat for bat roosts. Dedicated bat surveys will be required to be undertaken by developers prior to the renovation or demolition of any of these buildings. Mitigation measures can be introduced to avoid or remedy the loss of any bat roosts which are found.