

## 19 HEALTH IN IMPACT ASSESSMENT SIGNPOSTING

### 19.1 Introduction

19.1.1 As part of the Screening and Scoping Report (October 2018) for the Proposed Project, a chapter focusing on Human Health in Impact Assessment (HIA) was provided. The chapter set out existing desk-based knowledge and an evidence base to signpost where human health would be considered as part of the Environmental Appraisal. Due to the nature of the Proposed Project it was not proposed to prepare a stand-alone chapter relating to HIA as part of the Environmental Appraisal.

19.1.2 Following a meeting with Gwynedd Council Environmental Health Service (13 September 2019), it was acknowledged what had been agreed during the scoping process and that a formal HIA would not be required, however it was agreed that a chapter would be included within the Environmental Appraisal signposting to those technical chapters that are relevant to human health.

### 19.2 Signposting

19.2.1 A summary of those technical appraisals relevant to human health and their location in the Environmental Appraisal are presented in Table 19.1 below. Further detail on each topic is provided in the relevant section.

**Table 19.1: Technical appraisal of topics relevant to human health**

Location in Environmental Appraisal	Topic/ Document	Phase
Chapter 10	Geology, Soils and Contaminated Land	Construction
Chapter 12	Traffic and Transport	Construction
Chapter 13	Socio economics and Tourism	Construction and Operation
Chapter 14	Noise and Vibration	Construction and Operation
Appendix 2A	Outline Construction Environmental Management Plan (CEMP)	Construction
Appendix 2A	Dust Risk Assessment	Construction
Appendix 2A	Outline Waste Management Plan	Construction
Appendix 2A	Outline Construction Traffic Management Plan	Construction
Appendix 2B	Electric and Magnetic Fields Report	Operation

**Ground Conditions and Contamination (during Construction)**

- 19.2.2 Chapter 10 (Geology, Soils and Contaminated Land) presents an appraisal of the potential effects of contaminated land, including consideration of potential effects on human health. Appendix 2A (Outline CEMP) makes reference to best practice pollution prevention measures and site-specific environmental management measures that will be implemented to ensure that adverse effects on the environment and local communities are minimised. An Outline Waste Management Plan will be appended to the CEMP. Chapter 10 and the Outline CEMP are relevant to human health as improper management of contaminated land and water, waste and waste handling can have negative impacts on public health.

**Traffic and Transport (during Construction)**

- 19.2.3 Chapter 12 (Traffic and Transport) presents a traffic and transport appraisal which includes consideration of key parameters for potential health effects. An Outline Construction Traffic Management Plan will be appended to the CEMP which sets out the principles that the contractor will be required to implement in developing a detailed Construction Traffic Management Plan to ensure that all traffic arising during construction works operate in a safe and compliant manner. Chapter 12 and the Outline Construction Traffic Management Plan are relevant to human health as in the absence of appropriate traffic management, traffic can have a negative impact on human health.

**Socio-Economic (during Construction and Operation)**

- 19.2.4 Chapter 13 (Socio-economics and Tourism) presents an appraisal of the potential effects of the Proposed Project on tourism, access, amenity and employment. Chapter 13 is relevant to human health as amenity effects (through increased noise and vibration, traffic and visual effects) and employment and income are regarded as key determinants of health.

**Noise and Vibration (during Construction and Operation)**

- 19.2.5 Chapter 14 (Noise and Vibration) presents a construction and operational noise and vibration assessment for the Proposed Project. The assessment has followed BS 5228 Part 1 (British Standards Institute, 2014) which provides the methodology for assessing noise and vibration impacts on human receptors. The noise and vibration levels derived in BS5228 have been set taking into account human health parameters. Construction noise mitigation will be by means of the application of best practice, as set out in BS 5228. This has been formalised in the Outline CEMP. An operational noise assessment has also been undertaken in accordance with BS 4142: 2014 +A1:2019 Methods for rating and assessing industrial and commercial sound (British Standards Institution, 2014). Chapter 14 and the Outline CEMP are relevant to human health as elevated environmental noise and vibration has the potential to cause health impacts.

**Air Quality (during Construction)**

- 19.2.6 A dust risk assessment has been undertaken in accordance with the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction Version 1.1 (2014) in order to determine appropriate dust mitigation measures for the Proposed Project. The dust risk assessment will be appended to the CEMP. Appropriate mitigation measures have been incorporated into the Outline CEMP to address effects of dust and air emissions such as nitrogen dioxide (NO<sub>2</sub>) from construction activities. The Outline CEMP is relevant to human health as particulate matter and exposure to NO<sub>2</sub> can adversely affect human health.

***Electric and Magnetic Fields (during Operation)***

- 19.2.7 Appendix 2B (Electric and Magnetic Fields Report) considers the Electric and Magnetic Fields produced from the electricity assets associated with the Proposed Project and demonstrates compliance with public exposure guidelines.