

# **ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

## **VOLUME III APPENDICES**

### Appendix 21-1 Screening & Scoping



## **APPENDIX 21.1 - SCREENING & SCOPING**

### **1.0 Screening for Major Accident & Disasters**

The Proposed Development has been screened in for impact assessment in relation to major accidents and disasters based on consideration of its nature, scale and construction duration, and the receiving environment.

The screening has determined that it is conceivable (although highly unlikely) that:

- The Proposed Development could result in a major accident and/or disaster.

#### **1.1.1 Scoping for Major Accident & Disasters**

In general, major accident and disaster events, as they relate to the Proposed Development, will fall into three categories:

- Events that could not realistically occur, due to the type of development or its location.
- Events that could realistically occur, but for which the Proposed Development, and associated receptors, are no more vulnerable than any other development.
- Events that could occur, and to which the Proposed Development is particularly vulnerable, or which the Proposed Development has a particular capacity to exacerbate.

The scoping stage was undertaken primarily to identify this third group of major events, which would then form a shortlist of events to be taken forward for further consideration.

**Table A1 - Scoping Assessment of Potential Sources of Major Accidents and Disasters (Adapted from IEMA Primer)**

CONSTRUCTION PHASE				
Hazard Type	Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Progress to Stage 3?
<b>Infrastructure</b>				
Impact on Critical Infrastructure	Yes	Construction activities for the Proposed Development may impact on existing overground and underground utilities. Limerick Main Drainage infrastructure related to surface water pipework that runs along North Circular Road may be impacted as part of the raising of NCR for flood mitigation measures. Protection of this infrastructure during road raising works.	<ul style="list-style-type: none"> <li>• Population</li> <li>• Human Health</li> <li>• Hydrology</li> <li>• Hydrogeology</li> <li>• Material Assets</li> <li>Utilities</li> </ul>	<b>Yes</b>
Collapse / Damage to structures	Yes	There are historic buildings and protected structures on the proposed development site. Works to these existing historic buildings and structures on the site will be required. There is a risk of existing buildings / structures being damaged during the works. The retained chimney structure inspection in advance of construction and condition reports, potential change in wind loadings.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Material Assets Non-Agricultural</li> <li>• Architectural Heritage</li> </ul>	<b>Yes</b>
Fire/Explosion	Yes	Damage to unmapped services / utilities during earth works	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Material Assets Non-Agricultural</li> <li>• Architectural Heritage</li> </ul>	Yes

Hazard Type	Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	• Potential Receptors	Progress to Stage 3?
<b>Construction Accidents</b>				
Ground Collapse	Yes	The Proposed Development consists of works within an urban environment. Extensive earthworks will be required during the Construction Phase where there may be a risk of ground collapse. Limestone karst has been assessed by others and determined not to pose a problem.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Land &amp; Soils</li> <li>• Material Assets Non-Agricultural</li> </ul>	<b>Yes</b>
Release of Asbestos	Yes	The Proposed Development will require the demolition of existing structures which have been found to contain asbestos containing materials (ACM), presenting a risk of release of asbestos, if present, during the Construction Phase.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Air Quality</li> </ul>	<b>Yes</b>
Fire / Explosion	Yes	Damage to unmapped services / utilities during earth works	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Air Quality</li> </ul>	<b>Yes</b>
Unplanned outages / disruption to services.	Yes	Damage to unmapped services / utilities during earth works.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Air Quality</li> </ul>	<b>Yes</b>
Accidents when working with electrical equipment.	Yes	There is an existing ESB Networks sub-station on the development site with associated underground supply cables. There is a risk of electrical accidents during Construction Phase when working on or near this piece of equipment.	<ul style="list-style-type: none"> <li>• Human Health.</li> </ul>	<b>Yes</b>
Fire / Explosion	Yes	<p>The Proposed Development will require the use of flammable substances such as fuel storage areas at construction compounds and also working with electricity.</p> <p>There is a limited risk from the Proposed Development to cause a major accident by fire/explosion caused by fuel/flammable liquids present or in use on site during the Construction Phase.</p>	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Material Assets Non-Agricultural</li> </ul>	<b>Yes</b>

Works near surface or groundwater	Yes	Proximity to the Shannon Estuary SAC. There is a linkage between SAC/Westfields the CEMP will need to address pollution control.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Hydrology</li> <li>• Biodiversity</li> </ul>	<b>Yes</b>
Flood Defence Failure	Yes	There are no existing flood defences that would affect or be affected by the Proposed Development.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Hydrology</li> <li>• Biodiversity</li> </ul>	Yes
Tower Chimney Collapse	Yes	There is an existing tall brick chimney of significant heritage value on the proposed development site that could be impact by the works.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Material Assets Non-Agricultural</li> </ul>	Yes
Building Failure / Fire	Yes	The Proposed Development involves modifications to existing buildings on site. There is a risk of building failure/ fire to occur at these locations during operation phase.  Firewater runoff potential impacts & proximity to SAC.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Material Assets Non-Agricultural</li> </ul>	Yes
<b>Industrial Accidents</b>				
Industrial Accidents (works near Seveso site)	Yes	The Proposed Development is not in the vicinity of Lower or Upper Tier Seveso sites.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> </ul>	No
<b>Hydrological Disasters</b>				
Extreme Weather (Flooding) Events	Yes	Extreme flood events (heavy rainfall events, storms, prolonged flooding of rivers and estuaries, pluvial run-off) have the potential to occur. This has the potential to impact on the construction sites which store construction material and equipment which are potential sources of contaminants. The project can exacerbate the risk of flooding during construction by temporarily increasing hard standing in areas that are currently greenfield. The construction works could increase the number of people working near known sources of flooding, thus increasing the potential for flood risk related impacts on human health.	<ul style="list-style-type: none"> <li>• Biodiversity,</li> <li>• Material assets Agricultural</li> <li>• Material Assets Non-Agricultural</li> <li>• Population</li> <li>• Human Health</li> <li>• Water</li> <li>• Hydrogeology</li> <li>•</li> </ul>	<b>Yes</b>

Hazard Type	Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Progress to Stage 3?
Contamination Event: Contamination of the groundwater / reservoir	Yes	The Proposed Development will require ground disturbance activities and will require the excavation of a large amount of earth/ ground during construction.  There is a potential risk from the Proposed Development to cause accidental spillage of hazardous materials (e.g., construction plant fuels, oils etc.) which has the potential to accidentally contaminate groundwater abstraction points.  Construction phase spills or leakages and diesel storage bunding and fire risk.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> <li>• Water</li> <li>• Hydrogeology</li> <li>• Biodiversity</li> </ul>	<b>Yes</b>
Spillage or long-term seepage of pollutants into a watercourse	Yes	There is potential for accidental release of sediment-laden run-off or pollutants from machinery and plant to the Reservoir on site which has a hydraulic link to the Shannon Estuary during the Construction Phase.	<ul style="list-style-type: none"> <li>• Population</li> <li>• Human Health</li> <li>• Hydrology</li> <li>• Biodiversity</li> </ul>	<b>Yes</b>
<b>Disease</b>				
Animal and Plant Disease	Yes	Invasive species have been identified within the CRQ site. The likelihood of spread and the potential impact on native species varies. Depending on the likelihood of spread of these invasive species and the potential impact to native species, there is a risk of spread of invasive species during construction. This does not constitute a major accident or a disaster.	<ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Human Health</li> <li>• Material Assets Non-Agricultural</li> </ul>	<b>Yes</b>
Human disease	Yes	There is a risk of spread of human disease amongst construction workers.	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> </ul>	<b>Yes</b>
Release of asbestos fibres to atmosphere or surface water		Inadequate handling and removal of Asbestos Containing Materials (ACMs).	<ul style="list-style-type: none"> <li>• Human Health</li> <li>• Population</li> </ul>	<b>Yes</b>

OPERATIONAL PHASE				
Hazard Type	Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Progress to Stage 3?
<b>Transport</b>				
Aircraft Disasters	No	The Proposed Development does not have the potential to cause such an event. It would not be affected negatively by a major disruption of air travel, nor is it likely to exacerbate such an event.	N/A	No
Maritime Disasters	Yes	The Proposed Development is not considered to be particularly vulnerable to the effects of such an event, nor does it have the potential to exacerbate such an event.	N/A	No
<b>Geological Disasters</b>				
Sinkholes	No	The Proposed Development does not have the potential to cause such an event. The geology of the study area is not prone to sinkholes.	N/A	No
<b>Extreme Weather Events</b>				
Extreme weather (Severe snowfall / blizzards / hailstorm) event	No	The Proposed Development will be designed to operate under a range of environmental conditions, in accordance with the relevant standards, including EN 1991-1-4 Eurocode 1: Actions on structures: general actions - Wind actions, EN 1991-1-5:2003 Eurocode 1 – Actions on structures: General actions – Thermal actions, and EN 1991-1-3:2003 Eurocode 1 – Actions on structures: General actions – Snow Loads.	<ul style="list-style-type: none"> <li>• Population</li> <li>• Human Health</li> </ul>	Yes

Extreme weather (Gale force winds / storms / tornado / cyclone / hurricane / typhoon) event	Yes	<p>Flooding along the extents of the Proposed Development which may occur in extreme wind events, is reviewed separately. Although there are gale force winds in Ireland, their destructive force tends to be much less than in other parts of the world.</p> <p>There is a risk of structural damage to various elements of the Proposed Development from extreme wind events, particularly to the OHLE equipment.</p>	<ul style="list-style-type: none"> <li>• Population</li> <li>• Human Health</li> </ul>	<b>Yes</b>
<b>Crime/Civil Unrest</b>				
Crime or Civil Unrest	No	The Proposed Development is no more vulnerable than any other developments.	N/A	No
Cyber attacks	Yes	The Proposed Development is no more vulnerable than any other developments.	N/A	No
Terrorism	Yes	The Proposed Development is no more vulnerable than any other developments.	N/A	No