

15 RISK MANAGEMENT

15.1 Introduction

This chapter sets out the assessment of the vulnerability of the Proposed Development to risks of major accidents and/or disasters. It assesses the expected effects on the environment of the Proposed Development due to the potential risk of major accidents and disasters, and the Proposed Developments vulnerability to same, including the methodology used for the assessment. The interactions and mitigation and monitoring measures are included in Chapters 16 and 17, respectively.

15.1.1 Quality Assurance

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This chapter was reviewed by Gráinne Ryan, Principal EIA Consultant at DNV. Gráinne is an Environmental Consultant with 11 years' experience, specialising in EIAs for strategic infrastructure, renewable energy, residential, industrial and pharmaceutical projects. Gráinne has a B.A. in Geography, Planning and Environmental Policy, an MSc in Environmental Policy and a Post Graduate Diploma in Project Management.

This chapter has been approved by Catherine Keogan, Technical Director and EIA Lead at DNV. Catherine is an environmental consultant with 37 years' experience in consultancy, specialising in EIAs for large-scale residential, commercial developments, pharmaceutical, BESS and solar projects working closely with a range of developers, planning consultants and architects within the public and private sector. Catherine has a B.Sc. (Hons) in Analytical Science and a Post Graduate Diploma in Renewable Energy Technology Systems.

15.2 Study Methodology

15.2.1 Scope and Context

The relevant legislation that applies to this chapter is the Planning and Development Regulations 2001 as amended, and in particular Schedule 6 – Information to be contained in EIAR. The following paragraph of Schedule 6, Paragraph 2(e)(i)(IV), specifically refers to "*a description of the likely significant effects on the environment of the proposed development resulting from ... the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)*".

Paragraph 2(h) further expands with "*a description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as the Seveso III Directive or the Nuclear Safety Directive or relevant assessments carried out pursuant to national legislation may be used for this purpose, provided that the requirements*".

of the Environmental Impact Assessment Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for, and proposed response to, emergencies arising from such events."

Annex III to the EIA Directive 2011/92/EU requires that "*the risk of accidents, having regard in particular to substances or technologies used*" arising from a project subject to EIA, be assessed.

Additionally, the Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), which implement the Seveso III Directive (2012/18/EU), and which revoked the 2006 Major Accident Regulations also applies to this chapter.

Further relevant legislation includes:

- The Safety, Health and Welfare at Work Act 2005, which outlines the responsibilities of employers and others to ensure the health and safety of persons at work, including risk assessments and emergency preparedness; and
- The Floods Directive (2007/60/EC), which establishes a framework for flood risk assessment and management, aiming to reduce adverse impacts on human health, the environment, cultural heritage, and economic activity.

15.2.2 Guidelines and Reference Material

Cognisance has been taken of the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA 2022). This document follows the requirements laid out in the Directive 2014/52/EU.

Specifically, the EPA Guidelines state that the EIAR must take account of:

"...the vulnerability of the project to risk of major accidents and /or disasters relevant to the project concerned and that the EIAR therefore explicitly addresses this issue. The extent to which the effects of major accidents and / or disasters are examined in the EIAR should be guided by an assessment of the likelihood of their occurrence (risk)... The potential for a project to cause risks to human health, cultural heritage or the environment due to its vulnerability to external accidents or disasters is considered where such risks are significant, e.g., the potential effects of floods on sites with sensitive plants. Where such risks are significant then the specific assessment of those risks in the form of a Seveso Assessment (where relevant) or Flood Risk Assessment may be required. The EIAR should refer to those separate assessments while avoiding duplication of their contents."

Reference has also been made to the *Guide to Risk Assessment in Major Emergency Management* (Department of the Environment, Heritage and Local Government (DoEHLG) Publication '2010) and the *National Risk Assessment for Ireland* (Office of Emergency Planning, Department of Defence (DOD),2020).

To ensure consideration of most-up-to-date strategic and emerging risks, reference has also been made to the *National Risk Assessment 2023*, *National Risk Assessment 2024 – Overview of Strategic Risks*, and the EPA's *National Climate Change Risk Assessment*

(2025). These reports identify Ireland’s most pressing and emerging risks across civil, environmental, geopolitical, technological, and economic domains.

A consolidated list of national hazards, drawing on these documents, is presented in Table 15-1.

Table 15-1 Consolidated List of National Hazards (Sources: Department of Defence (2020); National Risk Assessments (2023 and 2024) and EPA National Climate Change Risk Assessment (2025)

Hazard: Civil	Hazard: Natural/Environmental
<ul style="list-style-type: none"> • Large Crowd Event • Pandemic (including zoonotic Diseases, AMR) • Water Supply Distribution and Contamination • Food Chain Contamination • Animal Disease • Terrorist Incident (including hybrid/Cyber-CBRN threats) • Social Cohesion and Civil Unrest • Migration and Integration Pressures • Misinformation/Disinformation Impacting Public Response 	<ul style="list-style-type: none"> • Storm • Snow and Ice (including prolonged low temperature) • Flooding (including pluvial, fluvial and coastal) • Coastal Erosion • Extreme Heat Events (and associated health impacts) • Biodiversity Loss • Climate Change (cumulative risk category) • Wildfires (emerging)
Hazard: Transportation	Hazard: Technological
<ul style="list-style-type: none"> • Maritime Incident • Air Incident • Disruption at Transport Hub (including airports, ports and rail stations) • Disruption to Critical Supply Chains (fuel, food, medicine) 	<ul style="list-style-type: none"> • Structural Collapse (including dam, tunnel, bridge and building) • Nuclear Incident (Abroad) • Cyber Incident (including ransom, infrastructure attack, digital networks) • Disruption of Energy Supply (including oil, gas, electricity and digital networks) • Disruption to Communication Infrastructure (telecom and satellite systems) • Disruption to Undersea Infrastructure (e.g. data cables, pipelines) • Risks from Artificial Intelligence (AI) and Autonomous Technologies • Failure of Emerging Tech (e.g. 5G, IoT, automated control systems)
Hazard: Geopolitical	Hazard: Emerging/Strategic
<ul style="list-style-type: none"> • Terrorists Incidents • Armed Conflict Abroad • Hybrid Threats (e.g. disinformation, sabotage) 	<ul style="list-style-type: none"> • AI-Enabled Drone Threats • Infrastructure Failure Due to Ageing or Climate Impacts

<ul style="list-style-type: none"> • Instability in Northern Ireland • Global Instability Affecting Supply Chains or Migration 	<ul style="list-style-type: none"> • Food Security Issues (supply distribution, climate-related crop failure) • Economic Risks (protectionism, inflation, loss of competitiveness)
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15.2.3 Risk Assessment Methodology

The risk assessment methodology applied in this EIAR draws on both established emergency management principles and current national strategic risk policy. Hazard analysis and risk assessment are internationally recognised as essential steps in identifying challenges that may need to be addressed by society, particularly in the context of emergency planning and resilience building.

Mitigation as a risk treatment process involves reducing or eliminating the likelihood and/or the impact of an identified hazard (DoEHLG, 2010). While the National Risk Assessment 2023 (Department of the Taoiseach) presents Ireland’s most up-to-date overview of strategic risks, it does not apply quantified recurrence intervals. Therefore, this EIAR adopts the likelihood classification framework previously used in A National Risk Assessment for Ireland (DOD, 2020), shown in Table 15-2, to support structured hazard evaluation.

The projects considered for potential cumulative developments are detailed in Chapter 2 of this EIAR. In addition to the standalone risk assessment, cumulative effects have been considered in the context of these developments. This includes potential interactions that may amplify risks related to emergency management, infrastructure capacity, and environmental resilience. The assessment draws on planning data and consultation with local authorities to ensure that cumulative risks are appropriately identified and mitigated.

Table 15-2 Classification of National Likelihood Criteria (Source: A National Risk Assessment for Ireland (2020) Department of Defence)

National Likelihood Criteria		
Rating	Classification	Average Recurrence Interval
1	Extremely Unlikely	500 or more years between occurrences
2	Very Unlikely	100-500 year between occurrences
3	Unlikely	10-100 years between occurrences
4	Likely	1-10 years between occurrences
5	Very Likely	Less than 1 year between occurrences

15.3 Predicted Effects

The chapters within this EIAR identify that the Proposed Development has been designed in accordance with best practice and that the Proposed Development can be safely undertaken without risk to human health and the environment.

In order to understand the potential consequences and predicted effects of any major accident or disaster due to the Proposed Development, and the vulnerability of the Proposed Development, a desk study was undertaken. The assessment reviewed:

- The vulnerability of the Proposed Development to major accidents or disasters; and
- The potential for the Proposed Development to cause risks to human health, cultural heritage and the environment, as a result of that identified vulnerability.

A methodology has been used including the following phases:

Phase 1: Assessment

The DOD Consolidated List of National Hazards was used to identify a preliminary list of potential major accidents and disasters. Receptors covered by legislation were not included within the assessment, for example, the quarry operatives.

Phase 2: Screening

The list was screened and major events caused by geological faults or natural phenomena were not included as the site is not located in a tectonically active region. The likelihood of such events occurring is extremely low within the context of Ireland's stable geological setting. Examples of events screened include earthquakes, volcanic activity, and landslides. Risks such as building collapse, which have been comprehensively addressed through design measures and engineering controls, are acknowledged but not repeated in detail within this chapter to avoid duplication. Their integration into the design process demonstrates that such risks have been appropriately mitigated.

Phase 3: Mitigation and Evaluation

In the event that mitigation measures included did not mitigate the risk, then, the potential effects on receptors are identified in the relevant chapter. Table 15-3 lists the major accidents and/or disasters reviewed.

Table 15-3 Major Accidents and/or Disasters Reviewed

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Civil				
Large Crowd Event (An event with over 5,000 people)	N	Not considered vulnerable due to the nature of the Proposed Development, i.e., Residential Development.	N/A	N/A
Water Supply Contamination	Y	Waterborne diseases can be caused by consuming contaminated drinking water. No public health issues have been identified for the Proposed Development. The drinking water is to be supplied by a new connection to the existing 400mm watermain on Boherboy Road and distributed throughout the site in 225/180/110mm OD watermains.	Local water users	Chapter 7 Hydrology and Hydrogeology of this EIAR identifies the control measures required to avoid contamination of water supplies during operational works.
Food Chain Contamination	N	Not considered vulnerable.	N/A	N/A
Animal Disease	N	Not considered vulnerable.	N/A	N/A
Terrorist Incident	N	Not considered vulnerable.	N/A	N/A
Transportation				
Maritime Incident	N	Not considered vulnerable. The closest port is Dublin Port which is located approximately 16km northeast of the site.	N/A	N/A
Air Incident	N	Not considered vulnerable. The closest international airport is Dublin Airport, which is approximately 20km northeast of the site. Casement Aerodrome, Baldonnel is a military airbase located approximately 3.5km north of the site.	N/A	Public safety zones are discussed in Section 15.4.2 of this chapter.

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Transport Hub (Includes Airports, Ports and Rail Stations)	N	The site is not considered as a transport hub. Not considered vulnerable.	N/A	N/A
<u>Natural</u>				
Archaeology	N	There are no recorded archaeological sites located within the footprint of the proposed ground excavation works within the boundary of the Proposed Development. The easternmost site boundary comprises a townland, parish and barony delineation and is therefore of historic significance.	Cultural Heritage	Chapter 12 (Archaeology and Cultural Heritage) identifies the potential vulnerability of the project to effects on archaeological and cultural heritage resources and outlines measures to avoid, reduce, or mitigate adverse effects on known and potential heritage assets within and surrounding the site of the Proposed Development.
Landslides	N	Geological Survey Ireland (GSI) has mapped the majority of the site is located within an area with a 'low' landslide susceptibility (GSI, 2025). There are no recorded landslides at the site or within a 2km radius of the site (GSI, 2025)	Residents, service users, members of the public and nearby properties.	Chapter 6 (Land and Soils) identifies the vulnerability to landslides, and outlines measures incorporated into the design and construction methodology to avoid or mitigate such risks at the site of the Proposed Development.
Earthquakes	N	Earthquakes are not likely to occur in the vicinity of the site at a sufficient intensity to pose a risk for the Proposed Development.	N/A	N/A

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Floods/ Storm surge/tidal flooding	Y	The site is affected by flood risk zones A & B at its northern boundary. The Proposed Development includes a basin at the northwest corner of the site which is designed to provide direct compensatory storage. The inclusion of this basin means that while the Proposed Development will impact on existing flood risk zones at some locations and thus displace floodplain storage, it reduces the ground level at other locations, thereby providing compensatory storage.	Proposed Development	Chapters 7 (Hydrology) identify the vulnerability of the Proposed Development to flooding related risks and outline the findings of the Site-specific flood risk assessment (SSFRA), which confirms that appropriate measures have been incorporated into the design to manage and mitigate these risks in accordance with national guidance.
Severe weather such as storms, blizzards, droughts, tornados, heatwaves	N	Not considered vulnerable. In the event of severe weather events, the national meteorological service, Met Éireann, provides advance notice of severe weather, usually several days in advance. When appropriate, colour-coded weather warnings are issued. The Office of Emergency Planning works with the government departments and other key public authorities in order to ensure the best possible use of resources and compatibility across different emergency planning requirements.	N/A	Chapter 9 Climate of this EIAR assessed the vulnerability of the Proposed Development to severe weather.
Air Quality events	Y	Chapter 8 (Air Quality) identifies that the Proposed Development is not considered vulnerable to significant air quality effects. Nonetheless, it outlines proactive measures to minimise emissions during the construction phase, including the use of dust suppression techniques and the requirement for vehicles and machinery to be turned off when idle. These measures are consistent with best practice and are designed to ensure compliance with relevant air quality standards and guidance.	Residents/workers	Chapter 8 Air Quality of this EIAR identifies preventative measures to be taken with regards to protecting ambient air quality.
Wildfires	N	Not considered vulnerable due to the location of the site of the Proposed Development.	N/A	N/A

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Fire	N	Chapter 14 (Risk Management) identifies fire as a potential risk associated with the Proposed Development, particularly during the construction and operational phases. While the likelihood of fire is low, its consequences such as potential loss of life, property damage, and environmental harm, warrant consideration. The design incorporates fire safety measures in accordance with building regulations and fire codes, and emergency response planning has been integrated to ensure risks are appropriately managed.	Residents, service users, members of the public and nearby properties.	Section 15.4.1 identifies fire as a potential risk associated with the Proposed Development and outlines a range of fire prevention and mitigation measures. These include the integration of fire-resistant materials in construction, provision of adequate access for emergency services, and installation of fire detection and suppression systems in accordance with building regulations. These measures are designed to reduce the likelihood of fire and minimise its potential effect on occupants, property, and the surrounding environment.
Invasive species	Y	A subsequent habitat survey was undertaken of the Proposed Development site on the 7 th April 2025 by Scott Cawley Limited. Two species of non-native, invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within the Proposed Development site: Three cornered garlic <i>Allium triquetrum</i> and Spanish bluebell <i>Hyacinthoides hispanica</i> .	Native species/local biodiversity	Chapter 5 (Biodiversity) identifies the vulnerability of the project to invasive species and details measures to avoid the introduction or dissemination of invasive species to and from the site of the Proposed Development.
Technological				
Structural Collapse (Building)	N	This has been taken into consideration in the building design. All buildings have been designed to modern standards. No further assessment is required.	N/A	The design criteria of the buildings are in accordance with all relevant building design standards.
Structural Collapse (Dam, Bridge, Tunnel)	N	Not considered vulnerable as no dams, bridges or tunnels are proposed as part of the development.	N/A	N/A

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Flood defence failure	N	Appropriate drainage design, SuDS and attenuation design, have all been included in the design of the Proposed Development and will be installed according to appropriate regulations and guidelines.	Residents, service users, members of the public and nearby properties.	Chapter 7 (Hydrology and Hydrogeology) identifies the vulnerability of the project to flooding and outlines measures to manage and mitigate flood risk. These include site-specific drainage design, attenuation systems, and compliance with the recommendations of the SSFRA, ensuring that the Proposed Development remains resilient to potential hydrological effects.
Nuclear incident	N	Not considered vulnerable.	N/A	N/A
Cyber incident	N	Not considered vulnerable.	N/A	N/A
Disruption of energy supply (oil, gas, electricity)	N	Not considered vulnerable. ESB Networks maintain the electricity network in Ireland. Gas Networks Ireland maintain the natural gas network in Ireland.	N/A	Chapter 13 (Material Assets – Waste and Utilities) identifies the infrastructure requirements of the Proposed Development, including energy supply, and outlines measures to ensure adequate provision and resilience.
Utilities failure (communications)	N	Not considered vulnerable. In Ireland, the fixed-line communications market is primarily served by operators such as Eir, Virgin Media, Vodafone, and Sky Ireland, with Eir. Mobile telecommunications infrastructure is operated by Eir, Vodafone, and Three, who collectively account for the majority of mobile subscriptions. Coordination with service providers will ensure the integration of high-speed broadband and mobile connectivity in line with national infrastructure standards.	N/A	Chapter 13 (Material Assets – Waste and Utilities) identifies the telecommunications requirements of the Proposed Development and outlines measures to ensure reliable connectivity.

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Utilities failure (water supply)	N	Not considered vulnerable.	N/A	Chapters 7 (Hydrology and Hydrogeology) and 13 (Material Assets – Waste and Utilities) identify the water supply requirements of the Proposed Development and outline measures to ensure adequate and sustainable provision.
Utilities failure (wastewater, sewage)	N	Not considered vulnerable.	N/A	Chapters 7 (Hydrology and Hydrogeology) and 13 (Material Assets – Waste and Utilities) identify the wastewater and sewage treatment requirements of the Proposed Development and outline measures to ensure effective collection, removal, and treatment.
Utilities failure (solid waste)	N	Not considered vulnerable.	N/A	Chapter 13 (Material Assets – Waste and Utilities) identifies the solid waste management requirements of the Proposed Development and outlines measures for its removal and treatment. These include the provision of segregated waste collection facilities, adherence to local authority waste management protocols, and implementation of construction and operational waste minimisation strategies in line with national waste policy.

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Major Accident or Disaster	Relevant for this Proposed Development?	Why relevant?	Potential Receptor	Covered within EIAR?
Industrial accidents (defence, energy, oil and gas refinery, food industry, chemical industry, manufacturing, quarrying, mining)	Y	<p>The Dachser Ireland Limited Upper Tier Seveso site is located approximately 5.8km west of the site. Brenntag Chemicals Distribution (Ireland) Limited Lower Tier Seveso site is located approximately 3.5km northwest of the site. These sites are regulated under the EU Seveso III Directive due to the presence of hazardous substances.</p> <p>Despite their classification, these facilities are not considered to present a significant risk to the Proposed Development due to their distance from the site, the absence of direct physical or operational links, and the robust safety and containment measures required under Seveso regulations. Furthermore, the Proposed Development lies outside the consultation zones defined for emergency planning purposes, and no pathways for off-site effect have been identified.</p>	N/A	N/A

Additional Consideration of Emerging and Strategic Risks

In addition to the major accidents and disasters reviewed in Table 15-3, emerging risks identified in the National Risk Assessment 2023, including digital exclusion, cyber threats, energy supply disruption, and AI-enabled technologies, have been considered in the context of the Proposed Development. Given the nature of the Proposed Development, these emerging risks are not expected to present significant vulnerabilities specific to the development. Standard design, operational protocols, and national infrastructure resilience frameworks are considered adequate to mitigate any indirect exposure to these strategic risks.

15.4 Management Plans

15.4.1 Fire Safety and Emergency Response Plan

Emergency Response Plans outlines the emergency preparedness measures to be implemented during the construction phase of the Proposed Development. These include the development of site-specific emergency response procedures prior to commencement of works, regular maintenance and safety checks, and coordination with local emergency services. Although the risk of fire is considered low due to the nature of the proposed operations, the plan accounts for increased labour, machinery, and vehicle movements on-site. The strategy ensures appropriate provision for fire safety, evacuation protocols, and incident management in line with health and safety regulations and best practice construction standards.

Potential fire risks may arise from:

- Fuel storage for machinery;
- Hot works (e.g. welding or maintenance); and
- Electrical faults or overheating of equipment.

These risks will be mitigated through standard site management practices, including:

- Secure and bunded fuel storage areas;
- Regular maintenance and inspection of plant and equipment;
- Fire extinguishers and emergency response equipment on-site;
- Staff training in fire safety and emergency procedures; and
- Clear access routes for emergency services.

These measures will ensure that fire risks are appropriately managed and that the site is prepared to respond effectively in the event of an emergency.

15.4.2 Public Safety Zone

Public Safety Zones (PSZs) are mapped out around airport runways to protect the public on the ground from possible aircraft crashes in populated areas. PSZs are used to prevent inappropriate use of land where the risk to the public is greatest, e.g., by limiting the type and allowable height of buildings and structures within the zones.

The closest airport to the site is Dublin Airport which is approximately 20km northeast of the site. There are no PSZs directly over the site of the Proposed Development. There are no PSZs associated with Dublin Airport that extend over or near the Proposed Development.

Casement Aerodrome, Baldonnel is a military airbase located approximately 3.5km north of the site and does not have mapped PSZs under national aviation safety guidance.

Given the distance from both Dublin Airport and Casement Aerodrome, and the absence of mapped PSZs in the vicinity, the risk of an aircraft-related incident affecting the Proposed Development is considered negligible. Therefore, aircraft strike risk is not considered relevant to the assessment of this site.

15.4.3 Potential Major Emergency Management Sites and Seveso Sites

Seveso Sites are defined as industrial sites that, due to the presence of dangerous substances in sufficient quantities, are regulated under Directive 2012/18/EU (Seveso III), which replaces earlier Directives 96/82/EC and 2003/105/EC. These sites are categorised as Lower or Upper depending on the type and quantity of hazardous substances stored at the site.

The Proposed Development is not classified as an establishment under the Control of Major Accident Hazard (COMAH) Regulations (SI 209 of 2015). The Proposed Development is not a regulated site under the Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations (2015) (COMAH), which implement the Seveso III Directive (2012/18/EU), and it is not connected to a regulated site.

While the Proposed Development site is located within the Garda Division of Dublin Metropolitan Region (DMR) – West Division which includes the districts of Clondalkin, Ballyfermot, and Rathcoole. The closest Upper Tier Seveso Site is The Dachser Ireland Limited, Rathcool site located approximately 5.8km west of the site. The closest Lower Tier Seveso Site is the Brenntag Chemicals Distribution (Ireland) Limited, Rathcool located approximately 3.5km northwest of the site. The Figure 15-1 shows the Proposed Development site as a red star, the Dachser Ireland Limited to the west and the Brenntag Chemicals Distribution (Ireland) Limited to the northwest of the site.

Based on the distance of the Proposed Development from any Seveso Sites the risk of a potential major emergency is not considered relevant to this Proposed Development.

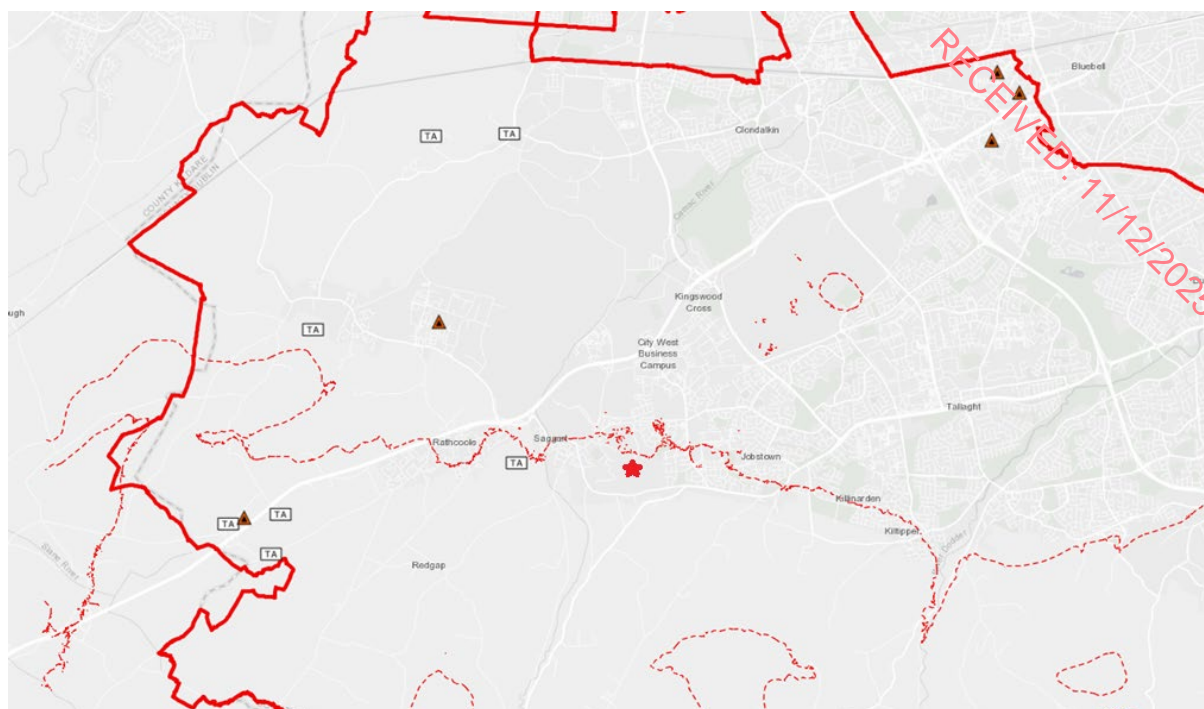


Figure 15-1: Seveso Sites located within near to the Proposed Development (South Dublin County Development Plan 2022-2028)

15.4.4 Flood Risk

The surface water features within the site recorded on the EPA database (EPA, 2025) are as follows:

- The Corbally Stream (also known as the Brownsbarn Stream) is a tributary of the Camac River. It flows along the eastern and northern boundaries of the site in a northerly direction before joining the Camac River approximately 2.1km north of the site.
- The Coldwater Stream originates along the western boundary of the site, flowing northward before discharging into the Corbally Stream at the site's northern boundary.
- The Cooldown Stream originates within the site and flows in a south-to-north direction, ultimately discharging into the Corbally Stream at the site's northern boundary.

The site is affected by flood risk zones A & B at its northern boundary. The Proposed Development includes a basin at the northwest corner of the site which is designed to provide direct compensatory storage. The inclusion of this basin means that while the Proposed Development will impact on existing flood risk zones at some locations and thus displace floodplain storage, it reduces the ground level at other locations, thereby providing compensatory storage (Kilgallen & Partners Consulting Engineers, 2025).

15.4.5 Dust Management Plan

Strategies for dust management during the operational phase of Proposed Development are detailed in Chapter 8, Air Quality. With respect to the potential impacts from uncontrolled dust emissions identified in Chapter 8, the key objective of the Proposed Development is to manage activities to ensure any significant increase in dust emissions are minimised.

15.4.6 Noise Management Plan

Strategies for noise management during the operational phase of Proposed Development are detailed in Chapter 10, Noise and Vibration. With respect to the potential noise impacts identified in Chapter 10, the key objective of the Proposed Development is to manage activities to ensure any significant increase in noise emissions are minimised.

15.4.7 Spill Response Plan

Chapter 6, Land and Soils, and Chapter 7, Hydrology and Hydrogeology, has assessed the potential for spillages during the Proposed Development. Only small volumes of fuel/oils will be present on-site and therefore no significant effects are expected.

Fuel storage and refuelling procedures will be developed for the site; fuel will be stored in bunded tanks and spill kits will be available onsite including in vehicles operating onsite. Staff will be familiar with emergency procedures for in the event of accidental fuel spillages. All works will be undertaken in accordance with conditions of granted planning.

15.4.8 Invasive Alien Species

The spread of invasive alien species poses a risk to surrounding ecology and biodiversity. A subsequent habitat survey was undertaken of the Proposed Development site on the 7th April 2025 by Scott Cawley Limited. Two species of non-native, invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within the Proposed Development site: Three cornered garlic *Allium triquetrum* and Spanish bluebell *Hyacinthoides hispanica*.

Chapter 5 (Biodiversity) of this EIAR details the mitigation measures to prevent the spread of invasive species to and from the site of the Proposed Development.

15.5 Residual Effects

Control measures will be put in place on site for health and safety and environmental management as per conditions of the planning permission, relevant codes of practices and relevant legislation.

Through the implementation of mitigation measures detailed in the relevant technical chapters of this EIAR, there are no identified incidents or examples of major accidents and or natural disasters that present a sufficient combination of risk and consequence that would lead to significant residual effects or environmental effects as a result of the Proposed Development, alone or in combination with other projects.

15.6 Monitoring

There is no monitoring required with regards to risk management. All monitoring proposals for the interacting chapters have been detailed in the relevant technical chapters and are included in Chapter 17 Mitigation Measures and Monitoring.

15.7 Difficulties Encountered When Compiling

No difficulties were encountered in completing this chapter.

15.8 Conclusion

The risk assessment undertaken as part of this EIAR has considered a comprehensive range of potential risks, including flooding, fire, industrial accidents, air quality, waste management, and infrastructure vulnerabilities. Each relevant chapter has identified specific risks and outlined appropriate mitigation measures in accordance with national and local planning guidance, including the Planning System and Flood Risk Management Guidelines and the South Dublin County Development Plan 2022–2028.

The site is located in Flood Zone A & B at its northern boundary and is not considered vulnerable to significant flood risk. Nearby Seveso sites has been assessed and are not deemed to pose a risk to the Proposed Development due to their distance and containment protocols. Fire risk is low and will be managed through a site-specific Emergency Response Plan. Air quality, waste, water, and utility infrastructure have been addressed through coordinated planning and design.

Taking all of the above into account, the site is considered suitable for development, with risks appropriately identified, assessed, and mitigated to ensure the safety, resilience, and sustainability of the Proposed Development.

15.9 References

- Chapters 4 to 14 of Volume 2 of this EIAR
- South Dublin County development Plan 2022-2028
- Environmental Resources Management Ireland Ltd (2005) Public Safety Zones Report
- Environmental Protection Agency (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports
- Garda Mapping Section – Seveso Sites Ireland WebMap <https://www.arcgis.com/home/item.html?id=a01b5a0a6ff24f10adff30beaa3b6fd0>
- Irish Water Greater Dublin Area water restrictions chart <https://www.water.ie/help/supply/water-shortages/>
- Office of Emergency Planning (2020) 'A National Risk Assessment for Ireland 2020' Department of Defence Publication
- Statutory Instrument (SI). No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

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