DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

EIAR FOR THE DEVELOPMENT OF A HEALTHCARE WASTE MANAGEMENT FACILITY AT BLARNEY BUSINESS PARK

Volume 1 – Non-Technical Summary

Prepared for:

SRCL Ireland Ltd (T/A Stericycle)

Stericycle®
We protect what matters.

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1. INTRODUCTION

1.1 Introduction

SRCL Ireland Ltd (trading as and hereinafter referred to as 'Stericycle' or the 'Applicant') propose developing a Healthcare Waste Treatment and Transfer Facility at an existing vacant light-industrial/warehouse building located at Block 8003, Blarney Business Park, Shean Upper, Blarney, County Cork, T23 EYH5.

Fehily Timoney & Company (FT) has prepared this Environmental Impact Assessment Report (EIAR) on behalf of the Applicant to accompany the application for planning permission made to An Coimisiún Pleanála for the proposed development.

Following consultations between the Applicant and An Coimisiún Pleanála, it has been determined that the proposed development is 'Strategic Infrastructure' within the meaning of Section 37A of the Planning and Development Act, 2000, as amended. The planning application of the proposed development is being made to An Coimisiún Pleanála.

This Volume of the EIAR provides a Non-technical Summary (NTS) of the following chapters contained in the main body of this EIAR (Volume 2).

1. Introduction
2. Need for the Proposed Development
3. Alternatives
4. Description of Existing and Proposed Development
5. Planning and Policy Context
6. Scoping and Consultation
7. Population and Human Health
8. Biodiversity
9. Soils, Geology and Hydrogeology
10. Hydrology and Surface Water
11. Air Quality
12. Climate
13. Noise and Vibration
14. Traffic and Transportation
15. Archaeological, Architectural and Cultural Heritage
16. Landscape and Visual Impact
17. Material Assets – Utilities and Waste
18. Inter-relationships and Interactions.
19. Schedule of Commitments.

In certain instances, where appropriate, this NTS utilises simpler and clearer language when summarising the chapters contained in Volume 2 of this EIAR. This is to aid the non-technical readers' understanding of the content presented and discussed.

1.2 The Applicant

The Applicant for the proposed development is SRCL Ireland Ltd (trading as 'Stericycle').

Stericycle provides essential healthcare waste management solutions in Ireland and internationally and are a Subsidiary of WM Inc. WM are a publicly traded US-headquartered market leader in waste management. Stericycle have a strong track record supporting the public and private sector in providing sustainable, resilient healthcare waste management services.

Stericycle holds a national contract with the Health Services Executive (HSE) to manage all the healthcare waste generated by HSE providers across the country and has successfully provided these services from two sites in the Dublin area for over twenty years.

1.3 The Development Site

The proposed development site is located at Blarney Business Park in the north-west of the Cork City area (ca. 7.2 km north-west of Cork City Centre). It is directly east of the settlement of Blarney.

The proposed development site is ca. 1.32 hectares and is located at the centre of the business park. A light-industrial/warehouse building and associated site infrastructure has been constructed on-site. Dispersed rural one-off housing and agricultural land delineated by hedgerow surrounds the business park in all cardinal directions. Areas of forestry are present in the area surrounding the business park, to the west, south-west and south.

The site and business park can be accessed directly from the N20 Cork to Limerick Road, which runs to the immediate west of the site. The Cork to Limerick railway line runs directly north of the business park.

Residential estates and associated land use that lie within the settlement of Blarney are situated to the north-west, west and south-west of the site. The nearest sensitive human receptors to the development site are residential dwellings situated at Aisling Geal 470 m north-west of the site.

The entire area of the development site is owned by Progressive Capital Investments ICAV Sub-Fund 2. The Applicant has entered into a Lease Agreement to occupy and use the site with the site owner. A Letter of Consent for the making of this planning application is provided by the site owner. This Letter of Consent is provided in Appendix 1.1 of Volume 3 of this EIAR.

1.4 Overview of Proposed Waste Management Activities

The following waste management activities will be undertaken at the proposed facility:

- The reception, storage, handling and treatment (using steam disinfection and mechanical shredding) of health care waste;
- The reception, storage, handling and re-packaging of healthcare and hazardous waste;
- The transfer of treated/re-packaged waste off-site; and,
- The automated management of reusable sharps containers.

All waste management operations will be carried out inside the existing building on-site. There will be no waste storage, handling or processing in the external yard area.

1.5 Regulatory Control of the Proposed Development

Waste management activities associated with the proposed development will be regulated under an Industrial Emissions (IE) Licence granted by the Environmental Protection Agency (EPA).

This authorisation will allow for the continued regulation and control of the proposed waste activities to be undertaken on-site.

1.6 The EIAR Process

The purpose of this EIAR is to provide a detailed description of the proposed development and outline potential impacts associated with the construction and operation of the development. Where adverse impacts have been identified, mitigation measures are proposed to reduce or eliminate the potential effects. This document provides a non-technical summary of the EIAR including a description on the receiving environment, details on the proposed development and potential impacts, mitigation measures and residual impacts.

In addition to the EIAR, an Appropriate Assessment Screening Report has been prepared for the proposed development, as required by Article 6 of the Habitats Directive.

The Competent Authority, in this case An Coimisiún Pleanála, prior to making a decision to grant development consent must conduct their own Environmental Impact Assessment (EIA) on the basis of this EIAR in making their decision on whether permission for the development will be granted.

The obligations imposed on the Competent Authority by the EIA Directive are set out in Part X of the Planning Acts.

Article 3 of the 2014 EIA Directive states that an *"environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:*

a) population and human health;

b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;

c) land, soil, water, air and climate;

d) material assets, cultural heritage and the landscape;

e) the interaction between the factors referred to in points (a) to (d)".

An EIAR presents relevant information such that an Environmental Impact Assessment EIA can be undertaken to assess the potential effects of certain development projects on the environment. The EIA process is undertaken by the relevant regulatory authorities.

The primary objective of an EIA is to ensure that projects which are likely to have significant effects on the environment are assessed and impacts avoided, where possible. This assessment process aims to achieve the most sustainable and environmentally friendly integration of a development with the local environment.

Chapters 7 to 17 of Volume 2 of the EIAR deal with specific environmental topics, for example, population and human health, air, climate, hydrology and surface water, noise, etc. These chapters may involve specialist studies and evaluations. The methodology applied during these specific environmental assessments is a systematic analysis of the proposed development in relation to the existing environment.

1.7 Cumulative Assessment

Cumulative assessment is an assessment of the changes to the environment that are caused by activities/projects in combination with other activities/projects. The potential significant effects of the proposed project are assessed in conjunction with other existing or proposed development located nearby or in the vicinity of the development in question. The potential combined environmental impacts can be accurately assessed in the event of the proposed development proceeding.

The co-existence of impacts may increase or decrease their combined impact. In summary, impacts that are not considered to be significant when assessed individually, may become significant when combined with other impacts.

The requirement for cumulative assessment derives from the EIA Directive, as amended, where Annex IV requires that the EIAR should describe:

> *"the likely significant effects of the project on the environment resulting from… the cumulation of effects with other existing and/or approved projects taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources".*

In terms of assessing the potential for cumulative effects in this EIAR, a review of other planned projects within Shean Upper townland and all surrounding townlands over the last 5 years was carried out. Planned projects and principal plans that have the potential to have a cumulative impact in-combination with the proposed development have been identified and are listed in Appendix 1.2, Projects and Plans considered during the Cumulative Assessment, in Volume 3 of this EIAR.

1.8 Difficulties Encountered

There were no technical difficulties encountered during the preparation of this EIAR.

1.9 Viewing of the EIAR

Copies of this EIAR including the Non-Technical Summary, the Appendices and EIAR Drawings may be inspected free of charge or purchased by any member of the public during normal office hours at An Coimisiún Pleanála, 64 Marlborough St, Rotunda, Dublin 1, D01 V902.

2. NEED FOR THE PROPOSED DEVELOPMENT

2.1 Context of the Proposed Development

The Irish waste management sector has transitioned away from being heavily *'landfill dependant'*, to one in which the role of landfill disposal as a waste management option has diminished. This reflects the requirements and objectives of European and national legislation and policy, where waste management activities are focused on the higher tiers of the waste hierarchy (e.g. waste recovery, waste recycling). Consequently, there has been a significant reduction in landfilling capacity in Ireland. This reduced landfill capacity has not yet been fully offset by an increase in waste management capacity at waste recovery or recycling facilities.

This requirement for waste recovery and recycling capacity extends to the healthcare waste management sector in Ireland. Currently, there are only two healthcare waste management facilities in the country, both of which are based in County Dublin. These facilities serve to manage all healthcare waste generated by the Health Service Executive (HSE) and other healthcare providers across the country. Such facilities do not have the capacity to provide for the management of healthcare waste generated into the future, and there is a limited capacity to manage a sudden rise in healthcare waste generation due to an unforeseen healthcare event such as a pandemic.

Thus, there is a need for a healthcare waste management facility that promotes the indigenous treatment of healthcare waste, the onward recovery and recycling of waste, and the diversion of waste from landfill through its operations.

The need for the proposed development is influenced by several factors, as presented below:

- The need to increase healthcare waste management capacity.
- Population growth increasing healthcare waste management generation.
- Waste management legislation and policy promoting the need for a Circular Economy model.
- Need for Hazardous Waste Treatment Capacity.
- Specific need for healthcare waste management capacity in the south and west of Ireland.
- Strategic importance of the proposed development.
- The need to drive Greenhouse Gas (GHG) emission reductions.

The Applicant currently holds a contract with the HSE for the management for all healthcare waste generated by HSE hospitals and other healthcare providers nationally. All healthcare waste collected by Stericycle under this contract is managed at either one the following Stericycle sites:

- Stericycle Healthcare Waste Transfer Facility. Unit 1 A, Allied Industrial Estate, Kylemore Road, Ballyfermot, Dublin 10, Dublin. EPA Industrial Emissions Licence Reference: W0054-02.
- Stericycle Healthcare Waste Treatment and Transfer Facility. 420-430 Beech Road, Western Industrial Estate, Naas Road, Dublin 12, Dublin. EPA Industrial Emissions Licence Reference: W0055-02.

Both facilities are currently operating at close to capacity. These facilities do not have the capacity to provide for the management of healthcare waste generated growth into the medium or long-term future given Ireland's growing and aging population, which is resulting in a greater demand for healthcare waste management capacity.

The Central Statistics Office (CRO) 2022 census determined that Ireland's population is 5.15 million. This represents an 8% increase in population since 2016. The CSO's 'Population and Labour Force Projections 2023-2057' (July, 2024) predicts that the population will increase to between 5.73 and 7.00 million by 2057 (assuming varying scenarios). There is a clear need for additional healthcare waste management capacity in the long-term given population growth trends. Additional healthcare waste management capacity is also required due to an aging population. The number of people aged 65 years and over is estimated to have risen by over 40% between 2013 and 2023, from 569,000 to 806,000, and is expected to double again to 1.6 million by 2051, according a CSO Older Persons Information Hub Press Statement (January 2024).

2.2 Developing Waste Management Legislation and Policy

Waste management legislation and policy promotes the need for and the creation of a Circular Economy model for Irish society and supports the implementation of strategies to increase recovery/recycling of waste and minimise disposal of waste to landfill, as defined in the National Waste Management Plan for a Circular Economy 2024-2030.

The provision of healthcare waste treatment capacity will contribute to increased levels of waste sorting and separation and onward material recovery/recycling. Thus, the proposed development substantively supports waste recovery and recycling in alignment with waste management policy and legislation, including the principles and policies underpinning the Circular Economy and Miscellaneous Provisions Act 2022, which provides the legal basis for the Circular Economy transition.

3. ALTERNATIVES

3.1 Introduction

Alternatives to the proposed development were considered during development planning and design processes. Environmental impact considerations informed these processes. This has result in a proposed development that is suitably informed and guided by environmental impact considerations.

The identification and assessment of project alternatives is a key part of the EIA process. The EIA Directive (Directive 2014/52/EU) restated and amended the requirement to consider project alternatives defined in the 2011 EIA Directive (Directive 2011/92/EU) and introduced the concept of 'Reasonable Alternatives.'

The European Commission has provided guidance on the consideration of reasonable project alternatives in their 2017 EIA Guidance Document '*Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report*.' The Commission's guidance indicates in Section 1.5.1 reasonable alternatives '*must be relevant to the proposed Project and its specific characteristics*,' and that alternatives should be feasible in terms of technical, economic, legal, and political criteria.

Box 29 of the 2017 EIA Guidance Document provides some key reasons why a project alterative might be considered unreasonable/infeasible, and includes where technology costs or budget obstacles can preclude certain options.

An assessment of reasonable alternatives to the proposed development has been undertaken in accordance with Article 5(1)(d) of the EIA Directive. This assessment has considered the following types of alternatives:

- 'Do Nothing' alternative scenario;
- alternative development site locations;
- alternative designs;
- alternative processes; and,
- alternative tonnage.

3.2 Assessment of Alternatives

3.2.1 Do-Nothing Scenario

The project alternative of a 'Do Nothing' scenario is an important part of the assessment of alternatives in EIA.

Under the 'Do-Nothing' scenario, the Applicant will not progress the proposed development and the site will remain as it is. The existing light-industrial/warehouse building at Block 8003 in Blarney Business Park would likely be leased by another party for an alternative use. In the 'Do-Nothing' scenario, the potential residual environmental impacts of the proposed development as out within this EIAR, will not occur. Project benefits will not be achieved in this scenario, associated with the creation of healthcare waste management capacity in the south-west region and additional capacity nationally, or realising circular economy policy objectives. Additionally, socio-economic benefits associated with the proposed development will not be realised in a 'Do-Nothing' Scenario, including job creation during the construction and operational phases.

3.2.2 Alternative Development Site Locations

Initially, the Applicant considered whether to develop the proposed development at a greenfield site or at an existing premises. A decision was made early in the development planning process to situate the proposed facility at an existing built premises for reasons including a greater magnitude of environmental impacts associated with the construction of new built development at a greenfield, faster delivery of development project and increased capital cost associated with constructing new built development.

The Applicant considered several existing built development site options prior to selecting the preferred site including expansion of the Applicant's existing facilities and at existing units in 77-79, Block R, Shannon Industrial Estate, Shannon Free Zone, Shannon, Co. Clare and Block 8003, Blarney Business Park, Blarney, Co. Cork.

1. The Applicant assessed the suitability and feasibility of the above alternative options using the following criteria: Site accessibility - the distance from the centres of waste generation (i.e. HSE hospitals and healthcare facilities) and major road networks.
2. Site services - adequacy of road networks serving the proposed development site, adequacy of site services (e.g. power supply, drainage, water supply).
3. Planning and environmental constraints
4. Suitability for the subject facility - capacity to accommodate proposed plant, ancillary infrastructure, and waste acceptance, handling, storage and processing operations

The consideration of non-environmental factors when considering alternatives is an important and relevant issue. The criterion of project economics and land availability was also added to the list.

An evaluation matrix was generated to evaluate and score how each potential development site option performs under defined criterion, including site accessibility, site services, planning and environmental constraints, suitability for the subject facility, project economics and land availability.

This evaluation confirmed Blarney Business Park as the preferred development site.

3.2.3 Alternative Designs

The existing development, infrastructure and services on-site dictated the range of site layout and design alternative options considered during the design process. Different facility configurations and layouts were considered by the Applicant's Design Team. The main factors considered included:

- The relationship between the facility layout and existing site/building features, including access and egress routes.
- The location of existing site services/potential for interference with existing site services.
- The physical capacity needed to accommodate each component part of proposed waste operations (e.g., treatment process, storage areas, waste handling).
- Measures/techniques to avoid/prevent environmental impacts due to facility operations. Environmental management measures/techniques to be implemented at the proposed facility.

Having regard to the above factors, the design process yielded the proposed site layout as detailed in the Proposed Site Layout Plan drawing provided in Volume 4 of this EIAR. The proposed site layout is one that will allow for effective and efficient operations, and which will effectively avoid/prevent the occurrence any significant adverse effects on surrounding environmental receptors, including receptors within the immediate vicinity of the site.

3.2.4 Alternative Processes

The proposed facility processing operations have been designed in an iterative manner that ensures that the facility is capable of accepting and appropriately treating/management the variety of waste types collected by the Applicant.

The main consideration from a process perspective was whether to utilise a Steam Auger Treatment Process or an Autoclave Treatment Process for the treatment plant at the facility. A Steam Augment Treatment Process was used for the treatment plant for reasons including that it is a continuous process that supports process efficiency, minimises fugitive emissions to air and accords with relevant 'Best Available Techniques' for healthcare waste treatment.

As the design process evolved, the Applicant also made a decision to install and operate an automated Sharps Container Management System at the facility. This will promote the re-use of re-usable sharps containers arriving at the facility, in line with circular economy principles.

These systems are consistent across Stericycle's operations, and ensure a high standard of operational control, housekeeping and environmental management at Stericycle facilities, and have been carefully designed to allow for Stericycle to operate in accordance with 'Best Available Techniques' relevant to the healthcare waste management sector. The Applicant did not therefore consider adopting alternative protocols and procedures at this proposed facility.

3.2.5 Alternative Tonnage

The Applicant initially envisaged accepting up to 20,000 tonnes of waste per annum at the proposed facility and ultimately decided to accept 15,000 tonnes of waste per annum at the facility, however. This was for the following reasons:

- This quantum of capacity facilitates sufficient growth potential for Stericycle's healthcare waste collection and management services in the region over the 50 year lifespan of the facility.
- It provides sufficient additional capacity that might be required in the event of any societal or healthcare event leading to significant increases in healthcare waste generation (as was the case when Covid 19 occurred).
- A strategic decision was made to have a relatively high intake capacity at the proposed facility, so that the site could act as contingency for Stericycle's Dublin sites, if those sites come under capacity pressure, and to ensure that the Cork site could be used as a back-up for the Dublin sites, in the event of any unplanned outages.

It is envisaged that waste acceptance levels will be below the 15,000 tonne per annum threshold during the initial years of the facility operating but will meet this threshold over the lifespan of the development.

4. DESCRIPTION OF EXISTING AND PROPOSED DEVELOPMENT

4.1 Existing Development

A light-industrial/warehouse building and associated site infrastructure has been constructed on-site. The development site has been unoccupied and unused since construction and is currently vacant.

The existing site infrastructure consists of:

- A site entrance and site access/egress;
- site security;
- a light-industrial/warehouse building;
- a yard area;
- parking areas;
- a surface water drainage system;
- a foul water drainage system;
- an electricity supply system;
- a water supply system
- a gas supply system
- external lighting;
- a CCTV security system and,
- boundary treatment/landscaping

The development site is accessed via an entrance at the south-east of the site boundary. A 7 m wide access roadway is situated at the front of the building on-site and alongside the building to the south. A 4 m wide access/egress roadway is also situated alongside the building to the north.

There is one existing building on-site. It is 70.6 m long, 57.6 m wide and 17.75 m high. The total footprint of the building is 4,067 m². The building is subdivided internally into different components comprising:

- An entrance area at the south eastern corner of the building;
- an operational area;
- ancillary office areas and welfare facilities;
- a mezzanine accessed via 2 no stairwells.

The existing site is served by the following systems:

- Surface water drainage system - A surface water drainage system serves the site. Rainwater falling on roof and external areas on-site is collected by the drainage system and discharged to the drainage network serving the overall Blarney Business Park, via a petrol interceptor and a stormwater attenuation tank.
- Foul water drainage system - A foul water drainage system is provided at the building on-site. This system drains to a 150 mm diameter foul water pipelines that connects from the building on-site to 150 mm diameter public foul sewer mains which runs along the road bounding the site to the east.
- Water supply system - A water supply system is present on-site. There is a 150 mm diameter ring water main to supply the site and for firefighting purposes. A water meter is located at the boundary of the site. Firefighting supply hydrants are provided to the east of the site at the landscaped area. This system is connected to the existing 150 mm diameter Blarney Business Park water main south of the site.
- Electricity supply system - An electricity supply system has been installed on-site. This system is connected – via underground connection - to the underground electricity mains serving the Blarney business park. An ESB substation and switch room building is situated adjacent to the 7 m access roadway to the south of building.
- Gas supply system – A gas supply system has been installed on-site. This system is connected – via underground connection - to the underground gas mains serving the business park.
- External lighting - External lighting is provided at the site. This lighting covers the site entrance, the parking area to the front of the building, the building entrance, access and egress roads to the rear yard and yard area. The lights are operated on a timer and using photocells. They are in a downward position to mitigate potential light pollution from the site. The purpose of the lighting is to make external areas on-site visible for safety and security.

4.2 Proposed Development

The proposed development will comprise the installation and operation of Healthcare Waste Treatment and Transfer Facility at the proposed development site. The facility will accept up to 15,000 tonnes of packaged healthcare waste per annum for management and will provide healthcare waste management capacity for the southern and western regions of Ireland. The proposed development constitutes a change of use of the site.

The following additions/alterations to existing infrastructure on-site will be made to facilitate the proposed development:

1. The installation of plant and facilities inside the existing light-industrial/warehouse building on-site to accommodate healthcare waste management operations and associated commercial activities.
2. The installation of a multi-flue stack (1.5 m x 2.0 m) at the existing roof of the building.
3. Modifications to increase the height of 2 x rear station doors from 3.0 m to 4.0 m.

Waste management activities on-site will be undertaken entirely within the existing building on-site.

The proposed facility will be comprised of the following components:

- A Healthcare Waste Treatment Plant, consisting of a shredder; a steam injection auger, an overband magnet and associated handling, conveyance and water systems;
- a gas fired steam generation boiler to supply the steam auger;
- a Bin Washing System for re-usable containers;
- an air abatement system to treat waste gases arising at the treatment plant. This system will consist of a high efficiency particulate air (HEPA) filter, a coalescing vessel and a carbon filter bed;
- a stack emission point to air (via the roof of the existing building), which will emit waste gases from the treatment process and the gas fired steam raising plant;
- an emission point to sewer, where effluent arising from treatment process condensate and bin washing will be discharged;
- a Waste Re-packaging Facility for healthcare and hazardous waste being subject to re-packaging and transfer;
- designated waste storage areas/facilities for waste pending treatment; waste pending re-packaging and transfer; treated waste residues for transfer; and re-packaged waste for transfer. These storage areas/facilities will have impermeable surfaces and sealed drainage, and all waste is stored in fully enclosed, leak-proof containers; and,
- a Sharps Container Management Facility.

The following ancillary facilities will be installed inside the existing building on-site to accommodate waste management operations and ancillary commercial activities.

- A main store;
- a cold store;
- a canteen;
- staff welfare facilities;
- office areas;
- a conference room;
- a laboratory;
- a mezzanine storage area
- a server room;
- a cleaners closet;
- a break out area; and
- a staff lobby.

It is not proposed to increase the size of the existing water, gas, electricity, wastewater or stormwater connections to the site. Existing utility connections at the site are sufficient for accommodating the proposed development.

Some further minor alterations will be made to existing ancillary site infrastructure to accommodate the proposed Healthcare Waste Treatment and Transfer Facility.

The construction works for the proposed development are minor, limited and small-scale in nature.

The proposed development does not involve any demolition, land-take, the construction of any additional buildings or structures on-site, site clearance or groundworks.

It is estimated that the construction phase of the proposed development will be 6 months in duration.

Construction work will generally be carried out during daylight hours. Construction work will be confined to the following times (unless otherwise agreed with the Local Authority):

- Between 7:00 AM and 6:00 PM, Monday to Friday, and 8:00 AM to 2:00 PM on Saturdays. No construction work is permitted on Sundays or bank holidays.

The proposed facility will operate 24 hours a day, 7 days a week, throughout the year, with 27 staff employed at the proposed facility.

There will be designated waste storage areas/facilities for waste pending treatment; waste pending re-packaging and transfer; treated waste residues for transfer; and re-packaged waste for transfer. These storage areas/facilities will have impermeable surfaces and sealed drainage and all waste is stored in fully enclosed, leak-proof containers.

Waste management activities associated with the proposed development will be regulated under an IE Licence granted by the Environmental Protection Agency (EPA). This authorisation will allow for the continued regulation and control of the proposed waste activities to be undertaken on-site.

Health and safety management will be implemented on-site in accordance with the Applicants Health and Safety Management System. A site-specific Health and Safety Plan will be developed for the facility. Access to the site during the operational phase of the proposed development will be restricted to employees, waste vehicles and occasional visitors. Procedures will be in place at the facility to ensure the health and safety of all persons entering the site, including the signing in/out of all visitors.

Traffic movements at the site will be controlled by an Operational Traffic Management Plan. An Accident Prevention Policy and Emergency Response Procedure will be developed and implemented at the facility.

The expected lifetime of the facility is 50 years. Upon cessation of waste management activities at the site, the facility will be decommissioned in accordance with a Closure Plan for the facility, which will be prepared as a condition of the IE licence for the waste activity.

5. PLANNING AND POLICY CONTEXT

5.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) examines waste management and climate change policy and legislation at international, European, national, regional and local levels and its relevance to the proposed development. The chapter also examines applicable planning policy and legislation at national, regional and local levels and its relevance to the proposed development.

5.2 The Proposed Development and Compliance with Planning and Policy

It is considered that the proposed development is in compliance with all relevant planning, waste management and climate related policies and objectives

There is an identified need for a facility of this type in this region. There is no healthcare waste management facility in the south-western region currently. The proposed development will remedy the current regional imbalance in healthcare waste management provisions.

The proposed development will provide indigenous health care waste treatment capacity, in line with the Proximity Principle and Self-sufficiency Principle.

The proposed development is located in a suitable area. There are no sensitive land uses in proximity to the development site. The proposed development, given its scale, and contained and controlled nature, will not result in adverse effects or nuisance on any off-site receptors, including existing commercial/light-industrial/industrial receptors surrounding the site.

The proposed development will not result in an adverse effect on the integrity of any European site or any other designated site or important non-designated ecological receptor.

In terms of European legislation, the proposed development will accord and comply with the Waste Framework and Landfill Directive, and transposing legislation obligations. The proposed development will support, promote and directly contribute to the management of waste as 'high up' the waste hierarchy as possible in accordance with EU Waste Law principles and EU waste management policy.

The proposed development will accord with national waste legislation, and national, regional and local waste policy, including the recently published National Waste Action Plan for the Circular Economy. The proposed development will accord with and support relevant policy objectives defined in all three regional waste management plans in Ireland.

The proposed development will support the achievement of EU, national and local climate policy objectives.

National planning policy, outlined in Project Ireland 2040 and the National Development Plan, will be supported by the proposed development. The proposed development will support the maximisation of waste recovery, reprocessing and recycling in accordance with the principles and policies established in these policy documents.

The proposed development will support relevant waste management related policy objectives defined in the Regional Economic and Spatial Strategy for the Southern Region.

A range of policy objectives including waste management, planning and climate related policy objectives outlined in the Cork City Development Plan 2022 - 2028 and the Cork City Council Local Authority Climate Action Plan (LACAP) 2024 - 2029 are supported by the proposed development. The proposed development is in support of the following Objectives defined in the Development Plan; Objective 5.1 A Climate Resilient City, Objective 5.2 International and National Climate Change Legislation, Policy and Guidance, and Objective 5.13 Waste Management. The proposed development also supports Action 5.25 of the Cork City Council LACAP. The proposed development will support, promote and directly contribute to the achievement of said Objectives and Actions.

6. SCOPING AND CONSULTATION

6.1 Introduction

This chapter describes the consultation process and EIAR scoping that was undertaken to identify potential impacts associated with the proposed development to be considered in the EIAR.

It presents the issues that arose through the consultation process and how these issues were addressed in the preparation of the EIAR.

6.2 Stakeholder Consultation

An informal or voluntary scoping exercise was carried out, which established the terms of reference for the EIA and identified the concerns and issues that warranted attention during the assessment phases. This process was carried out considering the four-stage process recommended in the European Commission guidance entitled 'Environmental Impact Assessment of Projects - Guidance on Scoping' (EC, 2017).

Using the (EC) (2017) methodology, while maintaining a 'flexible view' of the scope of the EIAR, the following tasks were undertaken during the scoping exercise:

1. FT conducted a preliminary appraisal of planning and environmental considerations relevant to the proposed development. This involved the following:
   - A review of EIARs carried out for similar waste management development, or for development situated in the vicinity of the proposed development site.
   - An examination of publicly available baseline environmental data and information relating to the development site and its environs.
   - A walkover of a similar facility operated by the Applicant at Beech Road, Dublin.
   - A walkover survey of the development site and the wider area surrounding the site.
   - An evaluation of reasonable alternatives associated with the proposed development, having regard to environmental criteria and considerations.
   - An examination of historic planning application files pertaining to the development site and surrounding sites.
   - A review of historic environmental monitoring data for similar facilities operated by the Applicant.
   - A review of the Cork City Development Plan 2022 – 2028, planning policy for the area and the Strategic Environmental Assessment and Appropriate Assessment produced for this Plan.

2. In April 2025, a stakeholder consultation document, which set out a description of the proposed development and the proposed scope of the EIAR, was issued to relevant consultees. This document requested scoping input from consultees. The scoping opinions from such bodies were taken into consideration when completing this EIAR.
3. In June 2025, a Virtual Public Consultation (VPC) was carried out to allow members of the public to develop an understanding of the proposed development and planning and environmental aspects associated with the development. The public were provided with an opportunity to submit their views on planning and environmental matters relating to the proposed development.

4. Between late 2024 to mid-2025 Pre-Application Consultations was undertaken with Cork City Council, An Coimisiún Pleanála and the EPA to scope the planning and environmental matters and topics to be addressed in the planning application and EIAR.

A consultation letter was sent out to 44 no. recipients on 25th April 2025. The recipients included relevant statutory consultees (as defined under planning legislation, non-governmental organisations (NGOs) and key stakeholders with an interest in planning and environmental matters.

6.3 Virtual Public Consultation

The Applicant held a VPC event online between the 12th of June and 10th of July 2025 to provide the wider community with an understanding of what the proposed development will involve, and to provide members of the public with an opportunity to submit their views on the proposed development. The applicant received no submissions on the proposed development during or after the hosting of the event.

6.4 Pre-application Consultation with An Coimisiún Pleanála

A Strategic Infrastructure Development (SID) pre-application consultation meeting took place with An Coimisiún Pleanála (ACP) on 27th March 2025. Various aspects of the proposed development were discussed with ACP representatives at this meeting.

A summary of comments received during this meeting and how these matters were addressed in this EIAR are provided in Chapter 6 – Scoping and Consultation in Volume 2 of this EIAR.

6.5 Pre-application Consultation with the EPA

A pre-application consultation regarding the operation of the proposed facility took place with the EPA on 08th May 2025. FT gave a presentation during this meeting which described the objectives of the meeting, the project background, the proposed development, the development site location and context, and proposed environmental management measures that will be implemented at the proposed facility. A concept site layout plan was also presented during this presentation.

6.6 Pre-application Consultation with Cork City Council

The Applicant carried out two pre-application consultations with the Cork City Council on the 21st of November and the 10th of December 2024. The main output from both meetings was that given the high-end nature of the Blarney Business Park, it is vital that the EIAR demonstrates that the proposed development is in accordance with the light industry zoning objective for the area and relevant policies/objectives of the Cork City Development Plan 2022 - 2028, and will not detract from the quality of the Business Park or negatively impact on existing businesses.

7. POPULATION AND HUMAN HEALTH

7.1 Introduction

This chapter has been prepared to examine the potential effects of the proposed development on population and human health in the study area.

The potential effects of the proposed development have been assessed considering mitigation measures to reduce or eliminate potential effects.

7.2 Baseline Environment

A review of Central Statistics Office (CSO) population statistics determined that the population of the State grew by 8.13% from the period 2016 to 2022, the population of Cork County increased by 7.6% over the same period and the population of Cork City & Suburbs increased by 6.6% over the same period.

The proposed development site is located in the north-west of the Cork City area (ca. 7.2 km north-west of Cork City Centre). It is directly east of the settlement of Blarney.

A variety of land uses occur within the defined study area, including:

- Pastures
- Discontinuous urban fabric
- Broad-leaved forest
- Non-irrigated land
- Land principally occupied by agriculture with areas of natural vegetation
- Complex cultivation patterns

Commerce and Trade, Professional Services and Manufacturing are the predominant industry types providing employment to the population within the study area. This is reflective of the presence of various commercial and industrial land uses within the study area and is consistent with the dominant industry types providing employment in County Cork, generally.

There are currently no known existing human health risks associated with the development site.

A variety of recreational land uses are present in the study area, including walking, cycling, golf and various team sports at dedicated sports fields. A number of amenity parklands are located within 3 km of the development site, including Waterloo Walk, Ring Wood and Siúlóid Phoiblí Abhainn Martin. Blarney Pitch and Putt Course is located ca. 1.09 km north of the site.

No recreational activities are carried out within the confines of the development site location or in its immediate environs.

Tourism-related land use is prominent in the area surrounding the development site. Several land uses in the study area cater to or accommodate tourists. Blarney Castle and Gardens, location of the Blarney Stone, is located ca. 1.77 km southwest of the site. Blarney Golf Club is located ca. 5 km west of the site and may potentially cater to tourists. The N20 to the west and south of the site serves as a major route for potential tourists to navigate Cork City and to travel to elsewhere in the country.

7.3 Impact Assessment

A 'Do Nothing' scenario will result in the development site remaining in its current state. The effects associated with the proposed development (E.g. traffic levels) will not come to fruition. The effects of a Do Nothing Scenario on local population and human health **Neutral** (i.e. Imperceptible).

If the proposed development does not proceed, potential exists for a deficit in waste management capacity in the southern region, having regard to the need for such capacity as defined in Chapter 2 – Need for the Proposed Development of this EIAR. Potential exists for the 'Do Nothing' scenario leading to the creation of a **significant** to potentially **very significant adverse effect** on population due to constrained healthcare waste management capacity.

The construction phases of the proposed development will create employment/labour demand for construction workers in the region. In this respect, it is considered that the proposed development will have a **temporary, slight, positive effect** in terms of local jobs creation and the local economy.

As a consequence, the construction phases of the proposed development may have a **temporary, negligible positive effect** on local population numbers. Employees involved in construction may reside locally during the construction of the development.

Construction and installation activities forming part of the proposed development will secure employment/labour over a 6-month period. This will result a **temporary, slight, positive effect** for people due to local job creation and local economy benefits.

The construction phase of the proposed development will positively impact on the existing businesses operating in the area through the potential for direct employment and indirectly through the purchase of construction equipment, tools, materials and ancillary products from suppliers in the local area and beyond. This will result in a **temporary, slight, positive effect** for local businesses.

In the absence of any health and safety management and control/mitigation measures, such works create risks which may lead to **moderate** to **very significant adverse** effects on worker safety, health and welfare (i.e. serious injury, fatality). Noise emissions associated with construction phase activities may also present an occupational risk to the health and welfare of construction workers in the absence of any mitigation (i.e. damage to hearing, tinnitus).

The development and operation of the proposed facility will secure a number of full-time jobs. The operation of the facility will also result in the creation of a substantial amount of additional jobs indirectly relating to waste collection activities. The securing of this employment will likely have a **long-term, slight, positive effect** on local population numbers.

The proposed development will provide healthcare waste management capacity to the southern and western regions and will increase national healthcare waste management capacity overall (including treatment capacity). This will have a **long-term**, **significant** to **very signficant positive effect** for population.

The development and operation of the proposed facility will secure a number of full-time jobs. The operation of the facility will also result in the creation of an unknown yet significant amount of additional jobs indirectly relating to waste collection activities. The securing of this employment will likely have a **long-term, slight** to **moderate, positive effect** in terms of local job creation and the local economy.

Facility operations will also positively impact existing businesses operating in the area through the potential for direct employment and indirectly through the purchase of goods, materials and support services for the facility from suppliers in the local area and beyond. This will result in a **long-term, slight, positive effect** for local businesses.

The proposed facility will serve to promote and maximize the recovery and recycling of material in accordance with Circular Economy principles. In addition, the proposed facility will contribute to meeting projected healthcare waste management capacity demands into the future, regionally and nationally. The proposed development has the potential therefore to have a **long-term, significant** to **very significant, positive effect** on the regional economy and economic sustainability.

In the absence of any mitigation the health and safety risks presented on-site have the potential to lead to **moderate** to **very significant, negative effects** on the safety, health and welfare of site employees (i.e. moderate injury, serious injury, fatality). All health and safety aspects associated with operations will be comprehensively managed in accordance with the Safety, Health and Welfare at Work Act 2005, as amended. Further detail on health and safety management measures with regards to safe operations at the proposed facility are contained in Section 7.6.

In the absence of any control and mitigation, mobile plant and traffic movement associated with facility operations on-site have the potential to result in **long term, significant** to **very significant, negative effects** on human health and well-being (i.e. Serious injury, fatality).

Avoidance by Design measures forming part of the proposed development will ensure signficant adverse effects on human receptors due to development activities are completely avoided. Additional mitigation measures have been defined to further minimise risk of effects on human receptors. With the adoption of these measures, the proposed development does not have the potential to generate significant adverse residual effects on population and human during either construction, operation or decommissioning. The proposed development has potential to generate the positive effects listed above.

8. BIODIVERSITY

8.1 Introduction

This chapter presents a Biodiversity Impact Assessment of the proposed development. It describes the existing ecological environment at and surrounding the proposed development and examines the potential effects that the proposed development) is predicted to have on biodiversity, flora and fauna. Appropriate mitigation measures are described to avoid, reduce or offset potential significant effect(s) on biodiversity where relevant.

8.2 Baseline Environment

The proposed development and immediate surrounds are dominated by Buildings and artificial surfaces (BL3), with Ornamental/non-native shrub (WS3) and Scattered trees and parkland (WD5) present at the boundaries of the application site.

The surrounding habitat is predominantly built lands (road, pavement, hard surfaces and buildings) and improved grassland with small areas of woodland associated with the N20. In the wider landscape the National Land Cover mapping indicates that the business park is surrounded by artificial surfaces (urban developments and roads), agricultural grasslands (improved grassland, dry grassland, and cultivated land) and broadleaved forest and woodland.

The closest NHA/pNHA to the proposed development is Blarney Bog pNHA (001857) located 690 m south of the proposed development. According to the Site Synopsis (27/11/2009) for Blarney Bog pNHA, the main habitats of the area are lowland wet grassland, both grazed and ungrazed, and freshwater marsh/fen. The site is used by a wide variety of important bird species.

There are no RAMSAR sites or Nature Reserves within the ZoI or with hydrological connectivity to the proposed development.

There were no records of rare and/or protected flora from NBDC data within the study area.

No invasive species were identified on-site.

The closest waterbody to the proposed development is the Shean Upper Stream (EPA code: 19S17; Order: 1), located ca. 230 m south-west of the site.

No mammals or mammal field signs were observed during the site walkover.

No bat roosting habitat features were identified within the proposed development.

During the site walkover undertaken for the EIAR, no Annex I (Birds Directive), Amber-list, or Red-list species were observed. Given the built nature of the proposed development and immediate surrounds (Blarney Business Park), there is no suitable habitat which would support foraging, breeding, or roosting Annex I (Birds Directive), Amber-list, or Red-list avian species.

8.3 Impact Assessment

None of the elements of the proposed development are located within the boundaries of any Nationally or European designated sites. There will be no effects on any designated site as a result of the construction, operation and decommissioning of the proposed development.

The accompanying AA Screening Report concludes 'that, given the scale and nature of the potential sources, there are no likely significant effects identified to any European sites'.

Furthermore, there is no connectivity between the proposed development and any NHA/pNHA, RAMSAR site, or Nature Reserves. Therefore the proposed development will have no impact on NHA/pNHA, RAMSAR site, or Nature Reserves.

There are no Annex I habitats or protected/rare flora within the proposed development. No habitats within or adjacent to the proposed development have been identified as Key Ecological Receptors (KERs). This is attributed to the urban/built nature of the proposed development and immediate surrounds. Therefore, there are no impacts for this criteria.

No Third Schedule invasive species were observed on site during the site walkover. There will be no spread of a Third Schedule invasive species to or from site.

There are no waterbodies within the Zone of Influence (ZoI) of the proposed development. Pathways for contamination/ deterioration of Shean Upper Stream and Lake (19_66)/ Blarney Bog have been ruled out.

No non-volant mammal species is deemed to be a KER. Therefore, there are no impacts for this criteria. are no impacts for this criteria.

Bats are not deemed to be a KER. Therefore, there are no impacts for this criteria.

Birds are not deemed to be a KER. Therefore, there are no impacts for this criteria.

Given the location of the proposed development, its design, scale and contained nature no impacts are envisaged on ecological features identified in and surrounding the site, and downstream of site.

No impacts on biodiversity are envisaged, therefore no mitigation measures are required.

9. SOILS, GEOLOGY AND HYDROGEOLOGY

9.1 Introduction

This chapter has been prepared to examine the potential significant effects of the proposed development on Soils, Geology and Hydrogeology present in the receiving environment at and surrounding the proposed development site.

The potential significant effects of the proposed development are assessed, having taken account of mitigation measures to reduce or eliminate any residual effects on receiving Soils, Geology and Hydrogeology.

9.2 Baseline Environment

The subsoils present at the proposed development site were taken from the GSI 1:50,000 Quaternary Geology of Ireland map (GSI, 2025) and comprise of 'Till derived from Devonian sandstones' (TDSs). Other deposits outside of the site but within the study area include 'Bedrock outcrop or subcrop (Rck), 'Gravels derived from Devonian sandstones'(GDSs), 'Alluvium' (A), and 'Fen Peat' (FenPt). The GSI 1:100,000 scale bedrock geology map (GSI, 2025) shows the site is primarily underlain by the Gyleen Formation. The Gyleen Formation is described as comprising of sandstone with mudstone and siltstone. The GSI Online Irish Geological Heritage database (GSI, 2025) indicates that the proposed development is not located in an area of specific geological heritage interest, including Natural Heritage Areas (NHAs) and County Geological Sites (CGS). The nearest quarry to the site is an active sand and gravel quarry located approximately 9 km southwest of the site. The GSI Online Landslides Susceptibility Database accessed via the Public Data Viewer (GSI, 2025) shows landslide susceptibility at the proposed development site is low. The owner of the site has confirmed no ground or groundwater contamination occurred during the construction of existing development on-site.

The Groundwater Vulnerability is classified by the GSI as 'High'at the proposed development site. The underlying subsoil permeability is 'moderate'. The GSI mapping indicates a total thickness of overburden of 3 to 10 metres.

The proposed development is located within the Ballinhassig East Groundwater Body (GWB). According to classification work carried out as part of the Water Framework Directive and published by the EPA, the Ballinhassig East GWB is classified as having 'Good' status in terms of quality and quantity. The GWB is classified as 'Not at Risk' of meeting of failing to meet its WFD objectives by 2027, under the 3rd cycle of the WFD risk assessment. The aquifer types within the Ballinhassig East GWB are classified as LI - Locally important bedrock aquifer which is moderately productive only in local zones (86%) and PI - Poor aquifer which is generally unproductive except for local zones (14%).

The GSI maintains a database of Public Supply Source Protection Areas. From a review of the database there are no Public Supply Source Protection Areas within the site boundary. There are no Group Water Schemes (GWS) within the site boundary or study area. Based on a review of the GSI Groundwater Wells and Springs database there are 7 no. Groundwater Well recorded within 1 km of the proposed development site. According to the GSI datasets, there are no karst features recorded within the proposed development site boundary.

The EPA groundwater monitoring data was used to determine the baseline quality of Ballinhassig East GWB. Low concentrations of filtered dissolved metals including arsenic, copper, lead, and zinc were recorded in groundwater samples. In 2024 and 2025 concentrations were below applicable IGV/OTV values for heavy metal parameters. In 2025 the pH value at the station was 6.2. In 2024 the pH ranged from 6.1 - 6.2. These are outside of the IGV normal range of 6.5-9.5 pH units. Conductivity values are below the acceptable range of 800 – 1,875 µS/cm for conductivity defined in the groundwater regulations. This information indicates that the Ballinhassig East GWB is considered to have a moderately soft/moderately hard hardness range, with a relatively low electrical conductivity. In 2025 chloride was 17.3 mg/l, below the acceptable range of 24-187.5 mg/l, as defined in the Groundwater Directive. Historical monitoring data at the station shows that chloride levels at this value are typical for this station. From 2024 to 2025 there was a drop in the levels of nitrate recorded from 6.4-6.7 mg/l to 2.6 mg/l. The readings are below the OTV value of 37.5 mg/l.

9.3 Impact Assessment

If the proposed development did not take place, the development site will remain as it is currently. The 'Do Nothing' scenario is not likely to result in significant effects on soils, geology or hydrogeology.

The proposed development will involve only minor, limited construction works that are small-scale in nature. Potential geological and hydrogeological impacts associated with the minor external on-site works include construction plant and machinery used during works will use fuels and oils. This presents potential for minor spills and leaks which could contaminate soils and groundwater. Some minor, limited concrete works when installing waste plant inside the building will also occur. Concrete and other cement-based products are highly alkaline and corrosive and can have significant negative impacts on soils or groundwater. The significance of these potential impacts is **Imperceptible**.

The potential effects on geology and hydrogeology from the operation of the proposed development would mainly be related to potential contamination from spills/leakages of fuel/oil. The significance of these potential impacts is I**mperceptible**.

There will be no adverse effects on soils, geology or hydrogeology due to the proposed development. This is based on the 'avoidance by design' measures integrated into the proposed development (E.g., waste management operations be carried out in accordance with Best Available Techniques, and inside the existing building on-site, robust operational controls being place, a firewater retention system being designed into the proposed development etc.).

10. HYDROLOGY AND SURFACE WATER

10.1 Introduction

This chapter has been prepared to examine the potential effects of the proposed development on the surrounding hydrological regime and water quality within the study area.

The potential effects of the proposed development have been assessed considering mitigation measure to reduce or eliminate potential effects.

10.2 Baseline Environment

Stormwater from the site is discharged to the drainage network serving the overall Blarney Business Park. This drainage network drains via culvert to the Shean Upper Stream ca. 230 m south-west of the development site.

The Shean Upper Stream flows in a southerly direction to the west of the N20 until draining into the Clogheenmilcon Fen (also known as Blarney Bog) located ca. 830 m to the south of the development site. The Clogheenmilcon Sanctuary Walk travers the area of the fen. The Fen drains into the Blarney River at a point ca. 930 m to the south-west of the site.

The Blarney River flows west, joining the River Shournagh ca. 3.3 km southwest of the site. The Shournagh continues to flow in a south-westerly direction for 1.5 km before bending towards the southeast and eventually flowing into the River Lee 4.7 km south-southwest of the site. The River Lee drains into the Lee Estuary ca. 5.5 km south-southeast of site, which in turn, flows into Lough Mahon 11 km east-southeast of the site. The Cork Harbour SPA and Great Island Channel SAC, protected Natura 2000 sites, are situated at the River Lee Estuary and in Lough Mahon. Detail regarding these designated sites and potential impact on these sites is contained in Chapter 8 – Biodiversity in Volume 2 of this EIAR, as well as in the Appropriate Assessment accompanying this planning application. The development site is hydrologically connected to Natura 2000 sites. This linkage is indirect and relatively distant in nature.

The development site lies within the Water Framework Directive (WFD) catchment HA 19 known as the Lee, Cork Harbour and Youghal Bay catchment. This catchment includes the area drained by the River Lee and by all streams entering tidal waters Lough Mahon and North Channel Great Island and into Cork Harbour, Co. Cork, draining a total area of 2,182 km².

The development site lies within the Manin_SC_010 WFD sub-catchment.

The Manin_SC_010 sub-catchment drains an area that is 90 km^2 in size covering sections from Blarney to Grenagh. This sub-catchment is considered to constitute the study area for the purpose of this assessment. This catchment encompasses the following sub-basins:

- MARTIN_010
- MARTIN_020
- MARTIN_030
- MARTIN_040
- BLARNEY_010

The development site lies within the MARTIN_040 sub-basin. This sub-basin is 17 km^2 and contains the River Manin, the River Blarney and their tributary streams and surface water drains, including the Killowen Stream, Knocknasuff Stream and Shean Upper and Lower Streams.

Upon review of historic flood events recorded by the OPW, it can be seen that within 2.5 km of the proposed development, there have been six recorded flood events at surface water bodies hydrologically connected to the development site. Four of these flood events occurred along the River Manin which lies 1.1 km to the west of the development site. This river joins with the Blarney River 1.9 km southwest of the existing site. In 2005 reoccurring road flooding on the N20 1 km northwest of the development site was identified. The most recently recorded past flooding event occurred in 2021 and was related to flooding from the Blarney River, 1.8 km southwest of the existing site.

A Provisional Flood Risk Assessment (PFRA) report and associated mapping prepared by the OPW, shows that there are no areas of the site which are subject to fluvial flooding.

The MARTIN_040 sub-basin is classed as being 'At Risk' of failing to meet its WFD objectives by 2027.

Water quality monitoring at the Blarney River is carried out under the Water Framework Directive Monitoring Programme by the EPA. The most recent water quality status assigned to the MARTIN_040 sub-basin is 'Moderate'.

The Blarney River can be characterised broadly as being of 'Good' ecological status having regard to past biological quality monitoring. 'Bawnafinny Br' showed a decline from High (Q 4 – 5) to Good (Q4) ecological quality in 2023.

Surface water quality throughout the entirety of the Manin_SC_010 sub-catchment sub-basin is moderate or good. Three of the five river waterbodies within this sub catchment, including the MARTIN_040, are of moderate status. Two of the five river waterbodies within the sub-catchment area are of good status. The 3rd Cycle RBMP assessment of the Lee, Cork harbour and Youghal Bay Catchment (within which the Manin_SC_010 sub-catchment is situated) concluded that the sub-catchment is affected by a number of significant pressures such as pressures from agriculture, urban wastewater, urban run-off and hydromorphology works on the rivers. There is a significant issue of nutrients and organics affecting the waterbodies within the sub-catchment

Based on the review of the existing environment and hydrological attributes of the area the importance of receiving surface water bodies is classified as being Very High.

10.3 Impact Assessment

The proposed development will involve only minor, limited construction works that are small-scale in nature. The proposed development does not involve any demolition, land-take, construction of any additional buildings or structures on-site, site clearance or groundworks. A vast majority of construction will take place inside the existing building. All operational phase waste management activities will be undertaken inside the existing building on-site.

The following 'avoidance by design' measures to protect the receiving hydrology and surface water environment form part of the proposed development:

- The construction/installation works will be designed, overseen and checked by competent engineers, suitably qualified and experienced in construction and the installation of a healthcare waste management facility.
- Refuelling of machinery and plant during construction will only occur off-site to avoid any risk of contamination due to refuelling spills.
- Waste/material generated during construction activities will be managed in accordance with the Resource and Waste Management Plan (RWMP) for the proposed development. All waste material generated during construction will be dispatched to an appropriately authorised waste management facility.
- To ensure the highest standards of environmental protection, the proposed development has been designed to operate in accordance with the following environmental protection standards:
  - European Commission (2018) BREF on Waste Treatment.
  - European Commission (2018) BATC on Waste Treatment.
  - EPA (2011) BAT Guidance Note on the Waste Sector.
- Effluent arising from the treatment process condensate and bin washing will be discharged from the operational area within the building (consisting of the waste processing and handling plant and ancillary plant/equipment/facilities, as well as the bin washing area) to the 150 mm diameter foul water pipeline serving the building through pipework and ACO drains installed within the area. This effluent will be discharged to the foul sewer mains in accordance with Uisce Eireann and EPA requirements defined under the Industrial Emissions licence for the facility. Domestic wastewater generated within ancillary building facilities such as the staff welfare facility or canteen, will be also directed to the foul sewer mains via foul pipe. All wastewater arising at the proposed facility will be conveyed to the Blarney Wastewater Treatment plant for appropriate treatment.
- Stormwater entering the drainage systems on-site will be directed to suitably designed, existing stormwater attenuation systems. A hydrobrake will be situated after the attenuation tank and will also be used to limit/control flow off-site to 8.55 litres per second. These systems will serve to prevent the rapid release of stormwater generated on hard-standing areas on-site.
- An existing, suitably sized oil separator is situated on-site. This will serve to prevent the discharge of oil-based material associated with site traffic during both construction/installation works and facility operations. It will be routinely inspected and maintained in accordance with manufacturer specifications.
- All waste management operations will be carried out inside the existing building on-site. There will be no waste storage, handling or processing in the external yard area.
- The existing building has been designed to act as a firewater retention system in the event of a fire at the waste facility. This system has been designed in accordance with EPA requirements and will serve to retain worst-case firewater volumes that could be generated during a fire at the facility.
- The facility will operate in accordance with an Environmental Management System certified to ISO 14001: 2015.
- The proposed facility has been designed to ensure waste material arriving on-site is highly contained. All waste arriving on-site will be in sealed containers and will only be offloaded inside the building on-site. The waste treatment process is also a contained process. There is negligible risk of waste becoming exposed and creating adverse environmental effects.

- As part of the proposed development, there will be designated waste storage areas/facilities for waste pending treatment; waste pending re-packaging and transfer; treated waste residues for transfer; and re-packaged waste for transfer. These storage areas/facilities will have impermeable surfaces and sealed drainage and all waste will be stored in fully enclosed, leak-proof containers.
- All hazardous waste containers brought on-site will be stored in appropriately sized bunded containers, providing secondary retention.
- The building on-site will also serve as a tertiary containment structure in the event of spill or fire event.

- A Spill Control and Response Procedure will be in place at the facility. Spill kits will be made available on-site. Staff will be trained in the use of spill kits.
- A Housekeeping Procedure and a Waste Storage Plan will be implemented to prevent improper storage/generation of waste in outdoor locations (i.e. regular inspection, proper waste handling etc.).
- Robust operational control practices will be in place at the proposed facility to prevent any loss of containment of waste (e.g., Waste Acceptance Procedure, Waste Reception, Recording and Tracking Procedure, Waste Storage Plan, Accident Prevention Policy and Emergency Preparedness and Response Procedure etc.).
- Decommissioning of the proposed facility/site will take place in accordance with the terms of a Closure Plan and the prospective IE licence for the facility. It is intended to wind the operation down gradually until such time the vast majority of residual wastes and materials are removed from the site. All site washdown and decontamination will take place in accordance with defined method statements. Surface water drainage systems will be sealed shut during washdown / decontamination. Wash water arisings will be retained, taken up and dispatched to an appropriately authorized wastewater treatment facility for appropriate treatment.

There will be no adverse effects on hydrology or surface water due to the proposed development. The potential impacts of the construction, operational and decommissioning phases of the proposed development on the hydrology and surface water environments are categorised as **Imperceptible**.

11. AIR QUALITY

11.1 Introduction

This chapter assesses the likely air quality impacts associated with the proposed development. The assessment of impacts has been undertaken in the context of current relevant standards and guidance and identifies any requirements or possibilities for mitigation. Baseline Environment

The nearest representative weather station collating detailed weather records is Cork Airport meteorological station, which is located approximately 10.6 km south-east of the site. Cork Airport meteorological data has been examined to identify the prevailing wind direction and average wind speeds for the site over a five-year period.

Long-term monitoring data within Zone B of the EPA air quality zones has been used to determine background concentrations for the key pollutants in the region of the Proposed Development. Baseline data indicates that levels of nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}) and particulate matter less than 2.5 microns ($PM_{2.5}$) and are generally well below the National and European Union (EU) ambient air quality standards.

The assessment of baseline air quality in the region of the proposed development has shown that current levels of key pollutants are significantly lower than their respective limit values.

11.2 Impact Assessment

Under the Do Nothing Scenario the proposed development will not be constructed, no construction works associated with the proposed development will take place and the previously identified impacts of fugitive dust and particulate matter emissions and emissions from equipment and machinery will not occur. The operational emissions to air associated with the proposed development will also not occur. An assessment of the potential dust impacts as a result of the construction phase of the proposed development was carried. This established the sensitivity of the area to impacts from construction dust in terms of dust soiling of property, human health and ecological effects. The surrounding area was assessed as being of medium sensitivity to dust soiling and of low sensitivity to dust-related human health effects. The sensitivity of the area was combined with the dust emission magnitude for the site from earthworks activities and trackout (movement of vehicles) to determine the mitigation measures necessary to avoid significant dust impacts. It was determined that there is a negligible to low risk of dust related impacts associated with the proposed development. In the absence of mitigation there is the potential for **direct, short-term, negative,** and **slight** impacts to air quality. In addition, construction phase traffic emissions have the potential to impact air quality, particularly due to the increase in the number of HGVs accessing the site. A detailed air assessment of construction stage traffic emissions has been scoped out from any further assessment as there is no potential for significant impacts to air quality with respect with human or ecological receptors.

Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions as a result of the increased number of vehicles accessing the site. A detailed air assessment of operational stage traffic emissions has been scoped out from any further assessment as there is no potential for significant impacts to local air quality.

The operational assessment involved air dispersion modelling of pollutant emissions from the Volatile Organic Compound (VOC) abatement system and a boiler as part of the proposed development. The assessment evaluated the impacts from nitrogen dioxide (NO_2) and VOC emissions at off-site locations including nearby residential properties, and the impact of nitrogen dioxide (NO_2), and nitrogen and acid deposition emissions at sensitive ecological receptors. The dispersion modelling has determined that concentrations of all pollutants are in compliance with the relevant ambient air quality standards. The effect of operational phase emissions from the proposed development in the absence of mitigation will be **direct, long-term, negative** and **not significant.**

Dust mitigation measures will be applied during the construction phase which will avoid significant impacts on air quality, including covering storage areas, inspections and maintaining a complaints register. No site-specific mitigation measures are proposed for the operational phase as impacts are predicted to be not significant.

With appropriate mitigation measures in place, no significant effects on air quality are predicted during the construction or operational phases of the proposed development. The residual impacts during the construction phase are predicted to be **short-term, negative** and **not significant**. During the operational phase, the impacts are predicted to be **long-term, negative** and **not significant**.

12. CLIMATE

12.1 Introduction

An assessment of the impacts of the proposed development on climate has been undertaken and is presented in this chapter. This assessment is comprised of the following:

- An assessment of impact of the proposed development on climate (Greenhouse Gas Emission Assessment).
- An assessment of the impact of climate change on the proposed development (Climate Change Risk Assessment).

12.2 Baseline Environment

With regards to the Greenhouse Gas (GHG) emission baseline, GHG emission data for Ireland was published in the EPA document entitled 'Ireland's Provisional Greenhouse Gas Emissions 1990 – 2024. Total national GHG emissions in 2024 (excluding LULUCF) are estimated to be 53.75 million tonnes carbon dioxide equivalent ($MtCO_2e$) which is 2.0% lower (or 1.09 $MtCO_2e$) than emissions in 2023 (54.85 $MtCO_2e$). GHG emissions in 2024 are 3.6% lower than the historical 1990 GHG emission baseline for the country.

Ireland is not in compliance with the EU's Effort Sharing Regulation (ESR) (406/2009/EC) in 2024 or cumulatively from 2021-2024. Since 2005 ESR emissions have decreased by 10.9% or 5.2 $MtCO_2e$., considerably short of Ireland's 42% reduction commitment by 2030. The 2024 annual limit set under the ESR was exceeded by 1.03 MtCO2e.

With regards to the Climate Change Risk (CCR) baseline, Ireland's climate is defined as a temperate oceanic climate, or 'Cfb' on the Köppen Climate Classification System. The climate of Ireland is mild and the dominant influence of Ireland's climate is the Atlantic Ocean. The North Atlantic Drift influences sea temperatures in the Irish marine area. The country is not affected by temperature extremes. Irish summers are relatively mild, while winters tend to be cool and windy. Irish weather is significantly influenced by the Polar Front - the transition region separating warmer tropical air from colder polar air in the mid-latitudes. The atmospheric circulation associated with the Polar Front in the region results in spells of cloudy, humid weather with rain and brighter, colder weather with showers, typically associated with the Irish climate. The Met Éireann Climate Statement 2024 reported key findings, including:

- The average annual air temperature for Ireland in 2024 was 10.72 °C, which is 1.17°C above the 1961-1990 long-term average which makes 2024 the fourth warmest year on record,
- Rainfall in 2024 was above average levels everywhere in the country an 2024 rainfall was the 41st driest or 44th wettest since 1941
- The wettest parts of the country in 2024 were the southwest, northwest and southeast
- Sunshine levels were above average levels. The south of the country was the sunniest.
- In 2024, various storms brought particularly strong winds, high rainfall, significant flood damage, widespread power outages and reports of coastal erosion.

The nearest representative Met Éireann weather and climate station to the development site is the Cork Airport Station. Historical weather and climate recorded at this station is presentative of weather and climate in the Blarney area. A review of 30 Year Climate Averages for this station shows that:

- The hottest months of the year are typically from May to September.
- The coldest months of the year are typically December, January and February.
- July was the warmest month with a mean temperature of 15.2 °C.
- January was the coldest month with a mean temperature of 5.7 °C.
- The highest temperature ever recorded was 27.8 °C.
- The lowest temperature ever recorded was -7.2 °C.
- The wettest of the year are from October to January.
- Winds are highest from October to April/May and relatively low during the summer months.

The National Climate Change Risk Assessment 2025 (NCCRA) states that Ireland's climate is continuing to warm in line with global warming with annual average surface temperatures. The NCCRA identified 115 climate risks and 43 significant climate risks facing the country. The principal current risks include energy infrastructure and communication infrastructure being impacted by extreme wind.

12.3 Impact Assessment

If the proposed development did not occur, the development site would remain as it is. The GHG emissions associated with the proposed development would not arise. The substantial GHG emission reductions associated with the proposed development would not arise (e.g., reductions in Stericycle vehicle fleet mileage etc.). The baseline climate environment would evolve in line with GHG emission projections and climate change predictions.

The construction phase of the proposed development will result in the generation of GHG emissions from sources including GHG emissions within the construction materials, fuel consumed during construction and waste treatment associated with construction. GHG emissions associated with each construction life-cycle stage were calculated and compared with the current baseline. Mitigation measures include adhering to a Resource and Waste Management Plan (RWMP). Construction phase GHG emissions are predicted to have a **Not Significant (Minor Adverse), Negative a**nd **Long-Term** effect on climate. The construction phase of the proposed development may be affected by climate hazards including flooding, extreme heat and extreme cold. The Vulnerability for construction phase of the proposed development to a climate hazard is Low. Climate change is predicted to have an **Imperceptible, Negative** and **Temporary** effect on the proposed development during construction.

The operational phase of the proposed development will result in the generation of GHG emissions from sources including GHG emissions from energy and water consumption on-site and GHG emissions associated with transport. GHG emissions associated with each operational life-cycle stage have been calculated and compared with the current baseline and 2030 national targets. Operational phase mitigation measures include adhering to an Emergency Response Procedure and regular inspection and maintenance of the site drainage system. Operational phase GHG emission are predicted to have a **Not Significant (Minor Adverse), Negative** and **Long-Term** effect on climate. The operational phase of the proposed development may be affected by climate hazards including flooding, extreme heat and extreme cold. An evaluation of the sensitivity and exposure of the proposed development was undertaken, and the overall vulnerability of the operational phase of the proposed development was determined. Overall, the vulnerability of the proposed development to climate hazards is Low. The Climate Screening Assessment has screened out the requirement for a Detailed Climate Risk Assessment Climate change is predicted to have an **Imperceptible, Negative** and **Long-Term** effect on the proposed development during operations.

13. NOISE AND VIBRATION

13.1 Introduction

Chapter 13 - Noise and Vibration in Volume 2 of the EIAR is a noise and vibration assessment that appraises potential noise and vibration impacts from the proposed development on the receiving environment. The chapter details the existing environment and proposed development at the development site, with regards to noise and vibration. A comprehensive review of potential significant noise and vibration effects of the proposed development is provided.

13.2 Baseline Environment

Baseline noise monitoring has been carried out at the nearest noise sensitive locations to the proposed development, to establish the existing ambient and background environmental noise levels in the vicinity of the site. This has enabled noise criteria for the site to be derived for both the construction and operational phases of the development and allow an assessment of potential noise and vibration impacts.

Baseline noise monitoring indicates that the dominant noise source in the vicinity of the site is road traffic on the surrounding road network. Baseline noise monitoring results were used to derive appropriate noise limits for construction based on British Standard BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise. For the operational phase, noise limits have been derived considering the results from baseline noise monitoring and guidance outlined in EPA document "Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)". Given that the proposed facility will operate under an IE licence granted and enforced by the EPA, this methodology is considered appropriate for the development. The proposed operational noise limits at the nearest noise sensitive locations are set out in this chapter for daytime, evening and nighttime periods.

13.3 Impact Assessment

There are no notable sources of vibration associated with the construction or operational phases of the proposed development. The nearest sensitive receptors are sufficiently distant that vibration is not likely to be perceivable by residents and building damage will not occur from vibration. Therefore, vibration associated with the construction and operation of the proposed development has been 'scoped out' of this assessment, as no potential impacts arise.

Noise emissions from the proposed activities during the construction and operational phases at nearby sensitive receivers has been predicted using computational noise modelling software.

Construction noise levels at the nearest noise sensitive locations were calculated using data from BS 5228-1:2009+A1:2014. The noise emissions from the proposed construction activities are considered cumulatively and are appraised against noise limits also defined in BS 5228-1:2009+A1:2014. The noise levels at the nearest noise sensitive locations are predicted to be below the construction noise thresholds during construction, without mitigation measures. The effects during the general construction works are predicted to be **negative**, **slight** and **temporary**. The increases in road traffic introduced onto the local road network due to the construction phase of this development will not significantly alter traffic flows and will not result in a significant noise effect. The effects due to the increase in road traffic during construction are predicted to be **neutral**, **imperceptible** and **temporary**.

The main activities during the operation of the proposed development are the reception, storage, handling, treatment and transfer of health care waste. This assessment considered the facility operating at its maximum capacity. While the facility is proposed to operate on a 24/7 basis, it is expected that the majority of waste operations will occur during day-time hours.

Noise predictions have been carried out according to the International Standard ISO 9313-2: 2024 Acoustics - Attenuation of sound during propagation outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors. Operational noise has been predicted using sound power level data sourced from recognised acoustic standards, measurements and manufacturer data.

Predicted operational noise levels were calculated at the nearest noise sensitive locations and assessed against the operational noise criteria for daytime, evening and night-time periods. The predicted operational noise levels were found to be below the relevant daytime, evening and night-time noise limits at all noise sensitive locations. The predicted noise levels are also below current ambient noise levels at the nearest noise sensitive locations. Therefore, it is likely that traffic noise will mask the noise from the proposed development. The effects during the operational phase of the proposed development are predicted to be **neutral**, **not significant** and **long-term**. The additional road traffic introduced onto the local road network due to the operational phase of this development will not significantly alter traffic flows and will not result in a significant noise effect. The effects due to the increase in road traffic are predicted to be **neutral**, **imperceptible** and **long-term**.

The predicted noise levels from on-site activity from the construction works associated with the proposed project are below the noise criteria in BS 5228-1:2009+A1:2014 and are not expected to result in significant negative effects. Nonetheless, several construction mitigation measures will be employed as good practice, to minimise any potential impacts from the proposed project. Mitigation measures include good construction practices for the prevention of noise, e.g., adopting a strict speed limit, minimizing drop heights, limiting working hours, preventing engine revving and idling, etc.

The predicted noise levels for the operational phase indicate that the noise limits are met at all noise sensitive locations during all periods. No significant noise impacts are anticipated during the operational phase of the proposed development and as such, no mitigation measures are deemed necessary. However, best practicable means to minimise operational noise will be employed by the operator, including:

- Purchasing low noise generating equipment.
- Roller doors will be closed during operation of internal equipment.
- Drop heights of materials will be minimised.
- Equipment will be properly maintained and inspected regularly.
- The unnecessary revving of engines shall be avoided and equipment shall be switched off when not in use.

No significant residual impacts will arise as a result of the construction phase of the proposed development. The general construction works are expected to give rise to effects which will be **negative**, **slight**, and **temporary** in duration. Effects from the increase in road traffic associated with the construction phase of the proposed development is expected to be **neutral**, **imperceptible** and **temporary**.

As a result of the operational phase of the proposed development, no significant residual impacts will arise. The predicted operational phase noise emissions are below the best practice noise limit values at all noise sensitive locations. The operational noise levels are also predicted to be below the current ambient noise levels at nearby noise sensitive locations. Noise emissions from site during the operational phase of the proposed development are expected to give rise to **neutral**, **not significant** and **long-term** effects. The effects associated with the increase in road traffic on the surrounding road network are expected to be **neutral**, **imperceptible** and **long-term**.

14. TRAFFIC AND TRANSPORTATION

14.1 Introduction

This chapter examines the likely significant effects of the proposed development on the receiving road environment assessing how the proposed development may affect traffic and transport in the surrounding area. It assesses current road conditions, predicts future traffic levels with and without the project, and evaluates potential impacts during both construction and operational phases.

This chapter has been prepared in accordance with the provisions of the EIAR Guidelines for Planning Authorities and An Bord Pleanála (August 2022), ensuring compliance with relevant national legislation and best practice in environmental assessment. In addition, the assessment has been carried out with due regard to the Transport Infrastructure Ireland (TII) 'Traffic and Transport Assessment Guidelines' (May 2014), which provide a structured framework for evaluating the potential effects of traffic arising from proposed developments. As such, Chapter 14 constitutes a comprehensive Traffic and Transport Assessment (TTA) and addresses both the construction and operational aspects of traffic generation, movement, and mitigation in the context of the proposed development.

14.2 Baseline Environment

The proposed development is located in Blarney Business Park which is a strategically located business campus with direct access to the N20 located approximately 6 km north of Cork City. The Park originally commenced construction in the mid 2000's. The current mix of uses at the business park includes, warehousing, storage and distribution, commercial and supply chain uses. The site is accessed via the Blarney Business Park Road, which for southbound traffic is accessed via left-in left-out slip lanes with the N20 and for northbound traffic is accessed via the R617 which in tum has access both to and from the northbound and southbound lanes of the N20.

The proposed development involves the re-purposing of an existing vacant industrial/warehouse building within the established Blarney Business Park. In assessing the potential traffic impacts of the proposal, it is important to recognise that the existing building has an established and permitted use as an industrial/warehouse facility. Were this building to be occupied for such a use, it would be expected to generate traffic on the surrounding road network in line with typical industrial or warehousing operations.

The study area comprises Blarney Business Park and the N20. Traffic surveys were conducted on the public road network in the vicinity of the site in May 2025 and included key roads and junctions near the proposed development site. The surveys measured existing traffic volumes and vehicle speeds and were conducted mid-week to reflect typical weekday traffic patterns including the commuter peak periods. The peak hours and associated traffic flows recorded in the May 2025 surveys were Weekday AM Network Peak Hour 08:00-09:00hrs and Weekday PM Network Peak Hour 16:30-17:30hrs.

The traffic flow data from the May 2025 surveys forms the basis of the assessments of road network capacity and the assessment of the likely impact of the proposed development on the operation of the receiving road network.

14.3 Impact Assessment

In the Do Nothing scenario it is expected that the traffic environment will remain as per the baseline. Traffic flows on the public road network can be assumed to grow in accordance with the latest published growth factors, but since the proposed development would not progress, the development would give rise to no increased traffic on the receiving roads and so would have no significant effect on local traffic conditions, capacity, queues or delays or on the level of service of the receiving road network in the study area.

The proposed development involves the re-purposing of an existing vacant light-industrial/warehouse building within the established Blarney Business Park. The construction phase or preparation of the building for the proposed use will generate only minor levels of construction traffic. These works do not involve any demolition, land-take, site clearance or groundworks that generate significant levels of waste (e.g. concrete, soil etc) that need to be hauled on or off the site by haulage vehicles (e.g. concrete, soil etc). Since the works do not involve the construction of any additional buildings or structures on site the construction period will not require significant levels of material inputs (e.g. concrete, steel, aggregate etc.) that need to be hauled to the site. The level of traffic associated with the construction phase for approximately 6 months, is considered not significant, negative and short-term, with peak HGV flows significantly less than those forecast for the operational phase. The combined effect of light vehicle traffic generated by construction staff and the delivery of materials and plant to fit out the building is forecast to give rise to a construction related peak hour traffic flow that is of such magnitude as likely not to be noticeable to existing road users.

Trip estimation at the proposed development is based upon direct comparison to existing developments and are based upon basic operating criteria in terms of the number of workers, customers, visitors and services provided. The trip forecasting methodology involves comparing the proposed development with a similar existing development and applying trip information from that site to the proposed development. The proposed plant is forecast to employ 28 no. staff working over two pre-determined shifts.

Daily fluctuations in traffic occur in practically every traffic environment and this is true of most commercially driven enterprises. Reference to delivery/weighbridge records for a similar development suggest a steady rate of inbound and outbound materials with only minor fluctuations. The traffic assessments in Chapter 14 adopt a forecast of the maximum likely potential impacts from the day of opening. Traffic generation values are important to consider against the Annual Average Daily Traffic, since this is an industry metric in the evaluation of roads capacity and roads maintenance. HGV traffic generation arises from the import of waste materials and the removal of processed materials. In total the site is forecast to generate 30 no. HGV trips per day.

The underlying traffic surveys recorded a relatively low proportion of HGV movements within Blarney Business Park. While the proposed development may slightly alter the composition of traffic on the internal business park roads, these roads are expressly designed to accommodate such vehicles. Accordingly, the change will not give rise to any significant adverse impacts. The overarching conclusion of the assessment it that the proposed development can reasonably be considered traffic neutral as the traffic generation of the proposed use is likely to have a similar impact as that arising from the permitted uses.

While construction-related traffic from a single development in Blarney Business Park is unlikely to have significant standalone impact, the potential for short-term cumulative effects arises where multiple projects overlap in their construction timelines. These impacts can be effectively managed through a combination of proactive planning, inter-contractor coordination, and regulatory oversight, ensuring that local transport infrastructure continues to function safely and efficiently during the construction period.

Mitigation measures are proposed, including a Construction Traffic Management Plan to minimise disruption during construction and spreading HGV deliveries to facility evenly throughout the day during the operational phase.

The residual impacts during the construction phase are predicted to be **Negative, Not Significant** and **Short-term**.

The residual impacts during the operational phase are predicted to be **Negative, Not Significant** and **Short-term**.

15. ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE

15.1 Introduction

This chapter has been prepared to examine the potential significant effects of the proposed Healthcare Waste Treatment and Transfer Facility regarding archaeological, architectural and cultural heritage on the surrounding environment.

15.2 Baseline Environment

The site is situated directly east of the settlement of Blarney. Blarney is a town located ca. 8km north-west of Cork City on the River Martin. There are no features of Archaeological, Architectural or Cultural Heritage importance at the development site or surrounding business park areas. Since the 18th century, Blarney has attracted visitors due to its setting within a picturesque and historic landscape and is well-known for its two large heritage tourist attractions in Blarney Castle and the Blarney Woollen Mills. Blarney has a rich heritage in textile production with a long-lasting textile industry.

The Blarney Architectural Conservation Area (ACA) focuses on preserving the historic cores of the town and its immediate surroundings and retain the character of the area. The main features of the Blarney ACA include Blarney Castle and Estate, Blarney Woollen Mills, 18th century village design centred on a village green, workers' cottages and churches. The Blarney Business Park is located a significant distance away from the core village centre and the defined ACA area. There are no views from the ACA or core village centre to the development site.

Blarney's Protected Structures are listed in the Cork City Development Plan 2022-2028, including Within Blarney Castle estate: Bridge (PS1215), Ornamental Tower, Tower House and Bawn (PS1218), Icehouse (PS1219). An examination of the Record of Monuments and Places (RMP) reveals that there are no recorded archaeological sites within 250 m of the development site. A review of the National Monuments Service – Sites and Monuments Records (MNS SMR) indicates that the closest SMR site to the proposed development is a Fulacht Fia approximately 414 m southwest of the proposed development.

Archaeological investigations that have been carried out within the local environment were reviewed. No previous archaeological investigations were undertaken at the proposed development site.

15.3 Potential Impacts

The proposed development will involve only minor, limited construction works that are small-scale in nature. The proposed development does not involve any demolition, land-take, construction of any additional buildings or structures on-site, site clearance or groundworks. Construction works will have no impact on Archaeological, Architectural and Cultural Heritage given their magnitude and the nature and character of the site and the surrounding area. There are no sensitive Archaeological, Architectural and Cultural Heritage features that could be affected by these works.

All waste management operations will be carried out inside the existing building on-site. There will be no waste storage, handling or processing in the external yard area. Facility operations will have no impact on Archaeological, Architectural and Cultural Heritage given the design of the proposed facility, the location of the facility, and the nature and character of the site and the surrounding area. There are no sensitive Archaeological, Architectural and Cultural Heritage features that could be affected by facility operations.

As a result, no mitigation measures have been proposed and the proposed development will have no significant residual impacts on Archaeological, Architectural and Cultural Heritage.

16. LANDSCAPE AND VISUAL IMPACT

16.1 Introduction

This chapter has been prepared to examine the potential impacts of the proposed development on landscape character and visual amenity of the surrounding area.

16.2 Baseline Environment

The existing development site is surrounded on all sides by similar developments situated in Blarney Business Park. Blarney Business Park is located to the east of the town of Blarney, directly east of the N20. The topography of the business park is generally low-lying.

The landscape of Blarney Business Park is characterised by a mix of commercial, light industrial, industrial and warehouse development, including buildings of similar nature, height and scale to the existing building present at the development site. The site and the surrounding landscape of the Blarney Business Park is located in an area zoned for 'Light industry and Related Uses' under the Cork City Development Plan 2022-2028. The main purpose of this zoning objective is to provide for and protect dynamic light industry and manufacturing employment areas. This landscape is distinctly commercial/industrial in nature.

Dispersed rural one-off housing and agricultural land delineated by hedgerow surrounds the business park in all cardinal directions. Areas of forestry are present in the area surrounding the business park, to the west, south-west and south. Ringwood is located on the opposite side of the N20 to the west of the business park. Stoneview is situated to the north of the business park, beyond the Cork to Limerick railway line. The topography of the Ringwood area is variable with a centralised high point at Ringwood Forest, which comprises a distinctive hilltop feature in the local landscape. The topography of the Stoneview area to the north of the business park is generally low lying but rises to the north. The most elevated parts of Stoneview to the north offer open and wide views southward over Blarney.

The visual baseline was characterised following a desktop review and a walkover of the local area. Viewpoints (VPs) in the surrounding area toward the development site, that are representative of the most prominent visual receptors in the area, were identified and include:

- VP1 - Blarney Business Park Southern Roundabout
- VP2 - Blarney Business Park Northern Roundabout
- VP3 - Facility Entrance
- VP4 - N20
- VP5 - Aisling Geal Residential Estate

Photographs of the existing views from the selected viewpoints are presented in Chapter 16 - Landscape and Visual Impact of Volume 2 of this EIAR. A description of the existing views toward the site is also provided.

16.3 Impact Assessment

The proposed development will involve only minor, limited construction works that are small-scale in nature. A vast majority of construction will take place inside the existing building. The proposed works will not affect the form of existing built development or landscaping currently on-site. There will be no loss of landscaping as part of the proposed development. The significance of construction phase effects on landscape and visual amenity is **Imperceptible**.

During the operational phase, all waste management operations will be carried out inside the existing building on-site. There will be no waste storage, handling or processing in the external yard area. Unloading of packaged waste will only take place inside the facility building. The yard area to the rear of the facility would be used by vehicles transporting waste to and from the site. The use of this yard by vehicles, including Heavy Duty Vehicles, is consistent with what was envisaged for the site already existing planning permissions for existing development at the site.

An air emission stack (1.5 m x 2.0 m) will be installed at the existing roof of the building. A steam plume associated with this new stack may be visible on an intermittent basis during facility operations.

The construction and operational phases of proposed development will have **Imperceptible** effects on receiving landscape character and visual amenity. These effects do not have the potential to combine with the effects of other development in the area to create significant cumulative effects. The character of the proposed development is consistent with the existing commercial/industrial character of the site and business park.

The following mitigation measures will be implemented to further minimise any potential effects:

- Fast acting roller doors will be used to prevent glimpsed views into the building from locations to the south of the site.
- A Waste Storage Plan and a Housekeeping Procedure will be in place and strictly adhered to prevent any temporary storage or unloading of waste outdoors.
- The new stack that will be installed atop the roof of the existing building will be designed in accordance Best Available Techniques. This will result in optimised plume dispersion and will minimize visibility of the plume.

Following the implementation of the above mitigation measures, the residual effects on the receiving landscape character and visual amenity remain **Imperceptible** during the construction and operational phases of the proposed development.

17. MATERIAL ASSETS – UTILITIES AND WASTE

17.1 Introduction

This chapter has been prepared to examine the potential effects of the proposed development on utility and waste management related material assets. An assessment of the effects the proposed development on utilities has considered potential impacts on electricity, gas, water supply, stormwater and wastewater infrastructure.

17.2 Baseline Environment

The development site is situated in Blayney Business Park. Blarney Business Park is a strategically located business campus set in over 70 acres with direct access to the N20 and just 6 kms north of Cork City.

The site and surrounding landscape of Blarney Business Park comprises an extensive built-up area featuring commercial/light-industrial/industrial buildings of similar height and scale to the existing vacant light-industrial/warehouse building at the development site.

Blarney Business Park has a mix of uses including warehousing, storage and distribution, commercial, light-industrial, industrial and supply chain units. Blarney Business Park also features amenities for the convenience of tenants including on-site car parking. The management of Blarney Business Park is fully controlled by JCD Group who have complete responsibility for the maintenance of both developed and undeveloped lands. Other features of the park include full CCTV coverage, security patrols, extensive landscaping with walking trails and 24-hour access.

An electricity supply system has been installed on-site. This system is connected – via underground connection - to the underground electricity mains serving the business park. An ESB substation and switch room building is situated adjacent to the 7 m access roadway to the south of building.

A gas supply system has been installed on-site. This system is connected – via underground connection - to the underground gas mains serving the business park.

A foul water drainage system is provided at the on-site. This system drains to a 150 mm diameter foul water pipelines that connect from the building on-site to 150 mm diameter public foul sewer mains which runs along the road bounding the site to the east. The public foul sewer mains conveys foul water generated in the catchment to the Blarney Wastewater Treatment Plant for appropriate treatment.

A surface water drainage system serves the site. This drainage system was designed in compliance with Sustainable Drainage System (SuDS) principles. Rainwater falling on roof and external areas on-site is collected by the drainage system and discharged to the drainage network serving the overall Blarney Business Park, via an existing petrol interceptor and an existing, suitably sized stormwater attenuation tank. The stormwater discharge point is situated at the south-eastern corner of the site. Stormwater discharges from the site are controlled by a hydrobrake, which limits the discharge to 8.55 litres per second. Stormwater from the site is discharged to the drainage network serving the overall Blarney Business Park. This drainage network drains via culvert to the Shean Upper Stream ca. 230 m south-west of the site.

Waste management in the Cork area and wider region is primary governed by the following:

- Waste Management Acts 1996, as amended.
- Waste Framework Directive 2008/98/EC.
- European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011), as amended.
- Circular Economy and Miscellaneous Provisions Act 2022
- Waste Action Plan for a Circular Economy
- National Waste Management Plan for a Circular Economy 2024 – 2030.
- Cork City Development Plan 2022 – 2028

Combined, this legislation and policy drive societal alignment with Circular Economy principles and currently controls and influences waste management activities in the Cork area and wider region.

Waste management infrastructure developed and operated in the Cork area is reflective of this policy context and primarily consists of facilities that contribute to the recovery and recycling of waste.

17.3 Impact Assessment

Construction works associated with the proposed development are limited in nature and scale. The sensitivity of utilities that may be impacted by construction works are **Minor** (i.e. local utilities). The magnitude of impacts on utilities is characterised as **Negligible** as no off-site utilities will be affected or interrupted by construction. The significance of effects on utilities due to the construction phase of the proposed development is characterised as **Imperceptible** and **Temporary**.

Construction works associated with the proposed development are limited in nature and scale. Only minor levels of waste will be generated during construction. There is adequate sustainable waste management capacity for the types and quantities of waste that are likely to be generated during construction works therefore the sensitivity of waste management infrastructure that may be impacted by construction works is **Negligible**. The magnitude of impacts on waste management infrastructure is characterised as **Negligible** given the anticipated levels of construction waste arising and the quantum of sustainable waste management capacity in the region. The significance of effects on waste management infrastructure due to the construction phase of the proposed development is characterised as **Imperceptible** and **Temporary.**

The sensitivity of utilities that may be negatively impacted by facility operations are **Minor** (i.e. local utilities) to **Moderate** (i.e. medium-scale, regional infrastructure). The magnitude of impacts on utilities is characterised as **Minor** as wastewater generated at the proposed will utilise existing wastewater treatment capacity at Blarney Wastewater Treatment Plant and there will be a slight impact on the quantity of this utility service. The significance of potential negative effects on utilities due to the facility operations is characterised as **Not Significant** to **Slight** and **Long-term**.

Only minor levels of waste will be generated at the proposed facility. There is adequate sustainable waste management capacity for the types and quantities of waste that are likely to be generated on-site during facility operations therefore the sensitivity of waste management infrastructure that may be impacted by facility operations is **Negligible**. The magnitude of impacts on waste management infrastructure is characterised as **Negligible** given the anticipated levels of operational phase waste arising and the quantum of sustainable waste management capacity in the region. The significance of potential negative effects on waste management infrastructure due to facility operations is characterised as **Imperceptible**, and **Long-term**.

The proposed facility will provide a substantial quantum of healthcare waste management and treatment capacity in the southern and western regions and nationally overall. The sensitivity of the healthcare waste management sector in the region is deemed to be **High** given the lack of regional Healthcare Waste Management Facility. The magnitude of positive impacts due to the development and operation of the facility is characterised as **High**, given the strategic and regional need for the proposed development. The significance of potential positive effects on waste management infrastructure due to facility operations is characterised as **Very Significant** and **Long-term**.

Decommissioning activities associated with the proposed development are limited in nature and scale. The sensitivity of utilities that may be impacted by decommissioning activities are **Minor** (i.e. local utilities). The magnitude of impacts on utilities is characterised as **Negligible** as no off-site utilities will be affected or interrupted by construction. The significance of effects on utilities due to the decommissioning activities is characterised as **Imperceptible** and **Temporary**.

Decommissioning activities associated with the proposed development are limited in nature and scale. Only minor levels of waste will be generated during decommissioning. There is adequate sustainable waste management capacity for the types and quantities of waste that are likely to be generated during decommissioning activities therefore the sensitivity of waste management infrastructure that may be impacted by decommissioning activities is **Negligible**. The magnitude of impacts on waste management infrastructure is characterised as **Negligible** given the anticipated levels of decommissioning waste arising and the quantum of sustainable waste management capacity in the region. The significance of effects on waste management infrastructure due to the construction phase of the proposed development is characterised as **Imperceptible** and **Temporary.**

The residual negative effects of the proposed development on utilities are **Imperceptible** to **Slight.**

The residual positive effects of the proposed development on waste management infrastructure are **Very Significant** and **Long-term**.

18. INTER-RELATIONSHIPS AND INTERACTIONS

18.1 Introduction

This chapter has been developed to identify potential inter-relationships and interactions between environmental aspects addressed in this EIAR (i.e., interactions between one environmental aspect and another environmental aspect which can result in an environmental impact).

The previous chapters have described the potential impact of the proposed development under a variety of different environmental topic headings. An assessment of impact inter-relationships and interactions is already embedded in these chapters. The purpose of this chapter is to take a more holistic and comprehensive view of the inter-relations and interactions between different aspects of the project and topics discussed in other chapters. This ensures that there is adequate coverage in this EIAR of the potential for the development to cause overall effects and cumulative impacts.

This chapter considers the identified potential impact interactions between the following environmental aspects/EIAR topic chapters:

- Chapter 7 - Population and Human Health
- Chapter 8 - Biodiversity
- Chapter 9 - Soils, Geology and Hydrogeology
- Chapter 10 - Hydrology and Surface Water
- Chapter 11 - Air Quality
- Chapter 12 - Climate
- Chapter 13 - Noise and Vibration
- Chapter 14 - Traffic and Transportation
- Chapter 15 - Archaeological, Architectural and Cultural Heritage
- Chapter 16 - Landscape and Visual Impacts
- Chapter 17 – Material Assets – Utilities and Waste

18.2 Evaluation of Impact Inter-relationships and Interactions

The proposed development has the potential to impact on various environmental topics, as detailed throughout this EIAR.

There are potential inter-relationships and interactions between these environmental topics, which may cause an environmental impact that is not perceptible when a topic is considered on its own, exclusively.

Key interactions and inter-relationships between the environmental aspects identified and assessed in this chapter are outlined in the matrix below.

	Population and Human Health	Biodiversity	Soils, Geology and Hydrogeology	Hydrology and Surface Water	Air Quality	Climate	Noise and Vibration	Traffic and Transportation	Archaeological, Architectural and Cultural Heritage	Landscape and Visual Impact	Material Assets - Utilities and Waste
Population and Human Health											
Biodiversity											
Soils, Geology and Hydrogeology											
Hydrology and Surface Water											
Air Quality											
Climate											
Noise and Vibration											
Traffic and Transportation											
Archaeological, Architectural and Cultural Heritage											
Landscape and Visual											
Material Assets - Utilities and Waste											

Note: Green highlighting indicates a potential inter-relation/interaction.

The impact inter-relationship and interaction assessments undertaken within each environmental topic chapter of this EIAR and within this dedicated chapter have concluded that environmental topic interactions will not result in any significant residual, adverse environmental effects, with the adoption of the mitigation measures specified throughout this EIAR.

19. SCHEDULE OF COMMITMENTS

This chapter summarises the mitigation measures (environmental commitments) in the Environmental Impact Assessment Report for the proposed development. Where similar commitments appear in multiple chapters or sections, these have been included in this chapter within their respective sections for completeness.

The reader is asked to refer to Chapter 19 – Schedule of Commitments, of Volume 2 of this EIAR which presents proposed environmental mitigation measures in full.

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