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A SUSTAINABLE FUTURE

# DEVELOPMENT OF A HEALTHCARE WASTE MANAGEMENT FACILITY AT BLARNEY BUISINESS PARK

## Appropriate Assessment Screening Report

**Prepared for:**

**SRCL Ireland Ltd (T/A Stericycle)**

Stericycle®

We protect what matters.

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# 1. INTRODUCTION

Fehily Timoney and Company (FT)[1] was commissioned by SRCL Ireland Ltd (T/A Stericycle) to prepare an Appropriate Assessment Screening Report for the development and operation of a Healthcare Waste Management Facility (also referred to as the 'project' in this report) located at Block 8003, Blarney Business Park, Shean Upper, Blarney, County Cork, T23 EYH5.

This report presents an examination of whether the project is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is based on best available scientific knowledge. This report has been prepared to inform the competent authority in completing their statutory obligations in relation to Appropriate Assessment, as required by Article 6(3) under Council Directive 92/43/EEC (Habitats Directive).

## 1.1 Legislative Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) provides legal protection for habitats and species of European importance. The Directive requires that where a plan or project is likely to have a significant effect on a European Site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

> *"6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

The competent authority must carry out a screening for appropriate assessment to assess, in view of best scientific knowledge, if the project at Blarney Business Park, individually or in combination with another plan or project is likely to have a significant effect on a European site. If it cannot be excluded, on the basis of objective information, that the proposed project, individually or in combination with other plans or projects, will have a significant effect on a European site, an appropriate assessment of its implications for the European Site(s) in view of the Site's conservation objectives is required to be carried out.

The provisions of Article 6(3) do not apply where the proposed plan or project is 'connected with or necessary to the management of the site'. In this case, the proposed project is not directly connected with or necessary to the management of any European site(s).

[1] Details on the contributors to this report are provided in Appendix 1.

# 2. METHODOLOGY

## 2.1 Guidance

This assessment was conducted in accordance with the following guidance:

- European Commission. (2021). Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C (2021) 6913 final.
- Environment Heritage and Local Government. (2009, updated 2010). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Dublin: National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government.
- European Commission. (2019). Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. Brussels, (2019/C 33/01). OJ C 33, 25.1.2019.
- Office of the Planning Regulator. (2021). OPR Practice Note PN01 Appropriate Assessment Screening for Development Management.

## 2.2 Process

The process of determining the likelihood of significant effects from the project on European sites is an iterative process centred around a Source-Pathway-Receptor (S-P-R) model. In order for an effect to be established, all three elements of this S-P-R mechanism must be in place. The absence of one of the elements of the mechanism is sufficient to conclude that a potential effect cannot occur.

- Source(s) – e.g., pollutant run-off, noise, removal of vegetation, etc.;
- Pathway(s) – functional link, or ecological pathway e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) – the qualifying habitats and species of European sites and ecological resources supporting those habitats/species which are sensitive to biophysical changes that result from the source of impact.

In the context of this report, a source is any identifiable element of the project that is known to interact with the receiving environment. A receptor is the Qualifying Interests (QI) for an Special Area of Conservation (SAC) or Special Conservation Interests (SCI) for an Special Protection Area (SPA) or an ecological feature that is known to be utilised by the QI/SCI. A pathway is any connection or link between the source and the receptor.

The assessment commences with a description of the project, along with a description of the receiving environment and the associated sources for impacts to the receiving environment. All elements of the project are presented including the project location and existing baseline environment. The type of impacts that are likely due to the project (Source) are identified having regard to the spatial and temporal scale of the project, resource requirements and likely emissions. These sources are then used to define the zone of influence (ZoI) of the project as detailed in Section 5.1.

The European Commission Notice (2021) on the 'Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, states that in identifying European sites (Natural 2000 sites), which may be affected by the project, the following should be identified:

- Any European sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;
- Any European sites within the likely zone of influence of the plan or project. European sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g., water) and various types of waste, discharge or emissions of substances or energy; and
- European sites whose connectivity or ecological continuity can be affected by the plan or project.

The zone of influence (ZoI) of a project is the geographical area over which it could affect the receiving environment in a way that could have potential effects on the QIs of a European site. The OPR (2021) practice note states that the ZoI must be established on a case-by-case basis using the S-P-R framework and not by arbitrary distances (such as 15 km). Section 5.1 sets out the rationale for the identification of relevant European sites within the ZoI based on the sources of impacts arising from the project. Subsequently, an assessment is undertaken with respect to potential connectivity (Pathways) to European Sites and their QIs/SCIs are identified.

The potential for in-combination effects with other plans and projects is examined in Section 5.4, having regard to the identified impacts of the project along the ecological pathways identified to European sites.

In Section 5.3 the likelihood of significant effects of the European Sites within the ZoI is examined having regard to the sensitivity of the site with pathways for impacts associated with the project on its own and in combination with other plans and projects.

Having regard to the European Commission Communication on the Precautionary Principle (European Commission, 2021) the:

> *"absence of scientific evidence on the significant negative effect of an action cannot be used as justification for approval of this action. When applied to Article 6(3) procedure, the precautionary principle implies that the absence of a negative effect on Natura 2000 sites has to be demonstrated before a plan or project can be authorised. In other words, if there is a lack of certainty as to whether there will be any negative effects, then the plan or project cannot be approved."*

Where significant effects are determined to be likely, or where there is uncertainty regarding the likelihood of significant effects, the project will be required under law to be subjected to Appropriate Assessment.

This AA screening is based on best scientific knowledge and has utilised ecological expertise. In addition, a detailed online review of published scientific literature was conducted. This included a detailed review of the National Parks and Wildlife Website including mapping and available reports for relevant sites and in particular QIs/SCIs described and their conservation objectives.

## 2.3 Desktop Assessment

A desk study was carried out to collate available information on the existing natural environment at the project location. This comprised a review of the following publications, data and datasets:

- Environmental Protection Agency (EPA) (on-line map-viewer including the Appropriate Assessment Tool)[2];
- Department of Housing, Planning, and Local Government- EIA Portal;
- National Parks and Wildlife Service – online European site network information, including site conservation objectives[3];
- National Parks and Wildlife Service – Information on the status of EU protected habitats and species in Ireland (including Article 17 and Article 12 Reports);
- National Biodiversity Data Centre[4];
- IFI Open Data- Water framework Directive Rivers Fish Ecological Status 2008 to recent;
- Aerial imagery of the Site and surrounding lands; and
- Tailte Éireann National Land Cover Map dataset.

## 2.4 Field Assessment

Ecological field assessments to inform the Appropriate Assessment Screening were focussed on habitats and species protected under the Habitats Directive and were designed following the findings of the desk study. Chapter 8 - Biodiversity of Volume 2 of the EIAR sets out the dates and survey methods employed.

[2] https://gis.epa.ie/EPAMaps/ Accessed 17/11/2025
3 www.npws.ie Accessed 17/11/2025
4 www.biodiversityireland.ie Accessed 17/11/2025

# 3. DESCRIPTION OF PROJECT

## 3.1 Project Location

The project 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.

Blarney Business Park is an established business park characterised by commercial, light-industrial and industrial land use. Construction of the Business Park commenced in the mid-2000's. In 2018, Blarney Business Park was acquired by the developer JCD Group Ireland and it has been developed significantly since then.

The project 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.

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

The Shean Upper Stream is situated ca. 230 m south-west of the project. This drains in a southerly direction into Blarney Bog pNHA (001857) ca. 690 m to the south of the project, the pNHA includes Clogheenmilcon Fen and Clogheenmilcon Sanctuary Walk. The wetland drains into the Blarney River at a point ca. 930 m to the south-west of the project.

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. Ring Wood is situated 415 m to the west of the project.

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 project.

## 3.2 The Existing Development

Existing site plans depicting the layout, elevations and cross sections of existing development on-site are provided in Volume 4 of the EIAR.

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.

### 3.2.1 Site Entrance and Site Access/Egress

The project 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. A 2 m wide footpath, which can be used to access the yard area to the rear of the building surrounds the northern, eastern and southern sides of the building on-site.

### 3.2.2 Site Security

The yard area to the rear of the facility is surrounded by a 2.5 m high security fence. 2.5 m high sliding security gating at the access/egress points is used to securely access and egress the yard area.

A CCTV system is in place at the project site and within the building on-site. A third-party security company monitors and manages the security system on behalf of the site owner.

### 3.2.3 Light-Industrial/Warehouse Building

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 existing building has a steel portal frame structure and a flat roof. The external envelope of the building consists of insulated, profiled cladding panels supported by a wall rail system. An entrance to the building is situated at its south eastern corner. This corner of the building is enveloped by integrated doubled aluminium curtain walling.

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 floor of the entire building is concrete. There are 2 no. roller doors situated to the rear of the building facing onto a delivery zone area in the rear yard (4.5 m wide and 5.65 m high). There are 4 station doors/bays situated to the rear of the building facing onto the loading bay ramp (2.5 m wide and 3 m high). There are 9 no. fire escape doors around the perimeter of the building.

Plans for the building have been provided in Volume 4 of the EIAR.

### 3.2.4 Yard Area

A yard area is situated to the rear of the facility (to the west of the building). This yard is entirely asphalt and is surrounded by a kerbed perimeter. The yard is secured by 2.5 m high fence. 2.5 m high sliding security gates are used to access/egress the yard. The facility building can be accessed from the yard via 2 no. roller doors and 4 no. station doors/loading bays, accessed via a loading bay ramp, present at the rear of the building. There are 4 no. truck parking areas at the loading bay ramp in front of the station doors/loading bays, and 2 no. truck parking areas in front of the roller doors.

### 3.2.5 Parking Area

There are 61 no. car parking spaces situated at the front of the facility (east of the building) and side of the facility (south of the building). Three of these are disabled parking spaces and six are Electric Vehicle (EV) parking spaces (with suitable EV charging facilities). There are also 6 no. motorcycle bays and 17 no. sheltered bicycle parking spaces situated at the parking area.

### 3.2.6 Stormwater 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. 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.

### 3.2.7 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 a 150 mm diameter public foul sewer mains which runs along the road bounding the site to the east.

### 3.2.8 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.

### 3.2.9 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 business park. An ESB substation and switch room building is situated adjacent to the 7 m access roadway to the south of building.

### 3.2.10 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.

### 3.2.11 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.

### 3.2.12 Boundary Treatment/Landscaping

Boundary treatment/landscaping is present around the perimeter of the site. This consists of the following:

- A pre-existing raised embankment along the southern perimeter of the site.
- A 5 m wide landscaped embankment along the west perimeter of the site, consisting of a mix of native species, including alder, young sessile oak trees, hawthorn and common white birch.
- Boundary treatment along the northern, western and southern perimeters of the site, including grassed areas and boundary planting.

## 3.3 The Proposed Project Development

### 3.3.1 Proposed Development Overview

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.

A Proposed Site Layout Plan depicting the proposed alterations relating to this project is shown in a drawing which accompanies the EIAR (See Drawing Reference 2896-P-003 Proposed Site Layout Plan contained in Volume 4 of the EIAR).

### 3.3.2 Proposed Healthcare Waste Treatment and Transfer Facility

A Healthcare Waste Treatment and Transfer Facility will be installed inside the existing building on-site. This facility will accept packaged healthcare waste for on-site treatment and/or transfer off-site for recovery/recycling or disposal, as the case may, at third-party waste management facilities. It will also accept packed hazardous waste for transfer off-site for third party waste management facilities. It will have a 50-year lifespan.

This 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.

### 3.3.3 Proposed Ancillary Facilities for Existing Building

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.

### 3.3.4 Alterations to Existing Site Infrastructure

Existing site infrastructure described in Section 4.2 of Chapter 4 - Description of Existing and Proposed Development, of the EIAR, will be utilised by the Applicant to operate the proposed Healthcare Waste Treatment and Transfer Facility.

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 project.

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

#### *3.3.4.1 Multi-Flue Stack*

A multi-flue stack (1.5 m x 2.0 m) will be installed at the roof of the existing building. Three flues will be housed by this stack – a 600 mm for the proposed treatment process abatement plant, a 300 mm flue from the proposed gas fired steam raising plant, and a 300 mm flue that will serve to ventilate steam from the bin wash process.

#### *3.3.4.2 Modifications to Existing Station Doors*

2 no. existing station doors to the rear of the existing building will be increased in height from 3.0 m to 4.0 m to accommodate unloading and acceptance of packaged healthcare waste from vehicles at these doors.

#### *3.3.4.3 Proposed Firewater Retention System*

A firewater retention system will be constructed/installed within the existing building on-site for the purpose of containing any firewater that may be generated in the event of a fire on site. This system is depicted in Drawing Reference 2896-P-101 Proposed Ground Flood Plan, contained in Volume 4 of the EIAR) and will consist of the following:

- A concrete bund wall surrounding the outer perimeter of the facility building. This wall will be 375 mm high.
- Automated Hazardous Material and Firewater Containment Barriers at access point gaps in the bund wall. This barrier will raise to a heigh of 375 mm when activated. It will be automatically triggered in the event of an emergency, spill or fire on site. The specific systems will be Anhamm Liquid Stop Barriers which are self-closing, stainless steel barriers with chemical and age resistant Polytetrafluoroethylene (PTFE) seals.
- An automatic shut off penstock on a pneumatic valve to the foul drain from the facility.

In the event of a fire, these components will act in combination to ensure the internal area of the building can act as firewater retention structure. The system will provide complete retention of any firewater which could be generated in the event of a fire on-site. It has been designed in accordance with EPA Guidance on Retention Requirements for Firewater Run-off (EPA, 2019), and to retain 'worst-case' firewater volumes that could be generated in a fire at the facility.

The system will be constructed/installed and periodically inspected, tested and maintained in accordance with EPA requirements defined in the Industrial Emissions licence for the operational facility and Best Available Techniques defined for waste management facilities.

Note that in the case of a fire, retained water will be tested and categorised and collected by tanker where it will be brought to a waste water treatment plant (if it does not contain contaminants) or a hazardous waste treatment facility (if contaminated).

## 3.4 Construction Phase

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

The installation of plant and facilities inside the existing building on-site will constitute the vast majority of the construction works to take place. Only minor construction works will be undertaken externally as part of the project.

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

### 3.4.1 Construction Programme

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

### 3.4.2 Construction Hours

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.

### 3.4.3 Overview of Construction Works

The following construction works will be undertaken on-site as part of the project:

- The installation of a temporary, small-scale construction compound inside the building on site, including a site office, staff welfare facilities, material/product storage areas, waste storage areas and portable toilets.
- The carrying out of minor additions/alterations to existing ancillary site infrastructure located externally on site; including the installation of a multi-flue stack at the roof of the existing building, and modifications to 2 no. existing station doors to the rear of the existing building.
- Haulage of plant, equipment and furnishings to the site.
- Temporary storage of plant, equipment and materials for building fit out on site.
- The installation of the waste processing and handling plant and ancillary plant/equipment/facilities at the operational area inside the building. This will include the carrying out of minor concreting works for the footings for plant supports
- The construction/installation of a bin washing area/system and associated drainage system inside the building.
- The delineation/installation of waste storage areas/facilities.
- The installation of the Sharps Container Management Facility and associated ancillary equipment and facilities.
- The installation of firewater retention facilities inside the building. This will include the laying of a concrete pathway perimeter/bund wall and automatic raising barriers at rear entrances to the facility, and the installation of an automatic shut off penstock on a pneumatic valve to the foul drain from the facility.
- The installation/fit out of ancillary building facilities, including staff welfare facilities, office areas etc.

- The haulage of construction waste arising during the works from the site to off-site waste facilities for management.
- Decommissioning of the construction site, clean-up of the site and facility commissioning.

### 3.4.4 Construction Plant

A combination of the following mobile plant will be used during construction:

- Forklifts
- Mobile Elevated Working Platforms
- Mini-cranes
- Telehandlers

This mobile plant will be operated inside the building on site for the vast majority of time, as the vast majority of construction works will take place inside the building. On the rate occasion that mobile plant is required outside of the building, it will remain within the project site.

Note that the temporary compound will be located within the existing building and mobile plant will remain withing the footprint of the project during the construction phase of the project.

### 3.4.5 Construction Waste

Only minor levels of construction waste will be generated during the construction works.

The works do not involve any demolition, land-take, the construction of any additional buildings or structures on site, site clearance or groundworks that may generate significant levels of waste.

There will be no oil/fuel storage or vehicle/plant maintenance activities undertaken on site during construction.

The type, quantity and source/s of wastes that are likely to be generated during construction, and the resource management route for these wastes, are listed in Table 4-1 of Chapter 4 of the EIAR.

Any wastes generated on site during the construction of the project will be handled and managed in accordance with the requirements of the Waste Management Act 1996, as amended, and associated Regulations. All wastes generated during the construction phase of the project will be segregated and stored temporarily in waste skip containers at the temporary construction compound inside the building. Wastes will be transferred off-site for recovery/recycling. Only appropriately authorised waste management providers will be used to haul wastes from the site. Wastes will be sent to suitably permitted/licensed waste facilities only. Wastes will be managed in accordance with circular economy principles and as *'high up'* the Waste Hierarchy defined under in the Waste Framework Directive (2008/98/EC) as possible.

### 3.4.6 Construction Resource Use

Only minor levels of resources will be required during construction.

The works do not involve any demolition, land-take, the construction of any additional buildings or structures on-site, site clearance or groundworks that may require significant levels of resources (e.g., concrete, steel, aggregate, fuel).

Only minor levels of the following resources will be used during construction:

- Concrete
- Steel
- Wood
- Glass
- Plastic
- Plaster
- Metal
- Fuels
- Oils
- Water
- Electricity

### 3.4.7 Construction Traffic

Only minor levels of construction traffic will be generated during construction.

The 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 off-site by haulage vehicles (e.g., concrete, soil etc).

The works do not involve the construction of any additional buildings or structures on site that require significant levels of material inputs (e.g., concrete, steel, aggregate etc.) that need to be hauled to the site by haulage vehicles.

Construction phase traffic associated with the project will be limited to the following:

- Construction staff driving to and from the work site by car, jeep and van.
- Occasional delivery of construction plant, equipment and tools to and from the site by jeep, van and Heavy Duty Vehicles (HDV).
- Occasional delivery of plant, equipment, products to be installed on-site (e.g., waste facility plant, ancillary, materials to be used during construction, furnishings) by jeep, van and HDV.

Construction traffic will enter and exit the site via the existing site entrance; access the rear yard via the access roadway alongside the building to the south; and leave the rear yard via the egress roadway running alongside the building to the north. A detailed Construction Traffic Management Plan (CTMP) will be prepared prior to the commencement of the construction phase of the project.

### 3.4.8 Environmental Management during Construction

A Construction Environmental Management Plan (CEMP) has been prepared for the construction phase of the project. This document is included in Appendix 4.1, Construction Environmental Management Plan, in Volume 3 of the EIAR.

Note: The mitigation measures defined in this CEMP have not been considered in this Appropriate Assessment Screening Report.

### 3.4.9 Resource and Waste Management during Construction

A Resource and Waste Management Plan (RWMP) has been prepared for the construction phase of the project. This document is included in Appendix 4.2, Resource and Waste Management Plan, in Volume 3 of the EIAR.

This RWMP has been prepared in accordance with the EPA's Best Practice Guidelines for construction and demolition (C&D) waste management which promotes a systematic and sustainable approach to managing C&D waste throughout the project lifecycle. This RWMP is designed to maximize recycling, reuse, and recovery of waste, prioritizing diversion from landfills wherever possible. This plan aligns with the Waste Hierarchy Principles of the Waste Framework Directive, by promoting and driving the effective management of materials to reduce unnecessary use of new products, optimize the use of secondary materials, and promote on site reuse to prevent waste generation.

### 3.4.10 Health and Safety Management during Construction

The construction contractor will be appointed as Project Supervisor for the Construction Stage (PSCS) in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013. The suitability and competence of the contractor to fulfil this role will be carefully assessed by the Applicant prior to the appointment.

A site-specific Health and Safety Plan for the construction phase of this project will be prepared in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013. This will address all safety aspects of the construction project.

## 3.5 Operation Phase

### 3.5.1 Proposed Waste Management Facility Activities

The following waste management activities will be undertaken during the operation phase of the project:

- 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.

In addition to the planning application for the project, the Applicant is also making an application to the EPA for an Industrial Emissions (IE) Licence for the waste activities to be carried out at the project site.

The classes of activity, as defined under the Third Schedule and Fourth Schedule of the Waste Management Act, 1996, as amended, pertaining to 'Disposal Operations' and 'Recovery Operations' respectively, which will be carried out during the operational phase of the project, are listed in Table 3-1 and Table 3-2. These prescribed classes of activity pertain to operations that the waste will be subject to at the project site and/or third-party waste facilities that waste leaving the project site ultimately gets sent to.

In normal circumstances, waste accepted at the project site will be subject to recovery operations at the project site or at third-party waste facilities that treated/re-packaged waste gets sent to ultimately.

There may be operational or market circumstances however where the treated/re-packaged waste gets sent to third-party waste facilities that subject the waste to a disposal operation. This will be rare, or may never occur, however there is a need to prescribe these disposal operations under the IE licence for the project to accommodate this possibility.

**Table 3-1: Proposed Waste Disposal Operations under the Third Schedule of the Waste Management Act 1996 (as amended)**

| | |
|---|---|
| **Class D9** | Physico-chemical treatment not specified elsewhere in this Schedule which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.). |
| **Proposed Activity Description** | Treatment of health care waste using steam disinfection and mechanical shredding, prior to dispatch to a third-party waste facility for a disposal operation. |
| **Class D13** | Blending or mixing prior to submission to any of the operations numbered from D 1 to 12 (if there is no other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12) |
| **Proposed Activity Description** | Shredding/re-packaging of health care waste, prior to dispatch to a third-party waste facility for a disposal operation. |
| **Class D14** | Repackaging prior to submission to any of the operations numbered D 1 to D 13. |
| **Proposed Activity Description** | Re-packaging of health care waste, prior to dispatch to a third-party waste facility for a disposal operation. |
| **Class D15** | Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of "collection" in section 5(1)), pending collection, on the site where the waste is produced. |
| **Proposed Activity Description** | Storage of healthcare and hazardous waste, prior to dispatch to a third-party waste facility for a disposal operation. |

**Table 3-2: Proposed Waste Recovery Operations under the Fourth Schedule of the Waste Management Act 1996 (as amended)**

| | |
|---|---|
| **Class R1** | Use principally as a fuel or other means to generate energy. |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste, prior to dispatch to a third-party waste facility for energy recovery. |
| **Class R3** | Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals. |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste (containing organic fractions), prior to dispatch to a third-party waste facility for recycling. |
| **Class R4** | Recycling/reclamation of metals and metals compounds. |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste (containing metal fractions), including on-site recovery of metal fractions subject to treatment, prior to dispatch to a third-party waste facility for recovery/recycling. |
| **Class R5** | Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials. |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste (containing inorganic fractions), prior to dispatch to a third-party waste facility for recycling. |
| **Class R12** | Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) |
| **Proposed Activity Description** | Shredding/re-packaging of health care waste, prior to dispatch to a third-party waste facility for a recovery operation. |
| **Class R13** | Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of "collection" in section 5(1)), pending collection, on the site where the waste is produced. |
| **Proposed Activity Description** | Storage of healthcare and hazardous waste, prior to dispatch to a third-party waste facility for a recovery operation. |

The proposed waste activities will also fall within the remit of the Industrial Emissions Directive (2010/75/EU), as implemented by the European Union (Industrial Emissions) Regulations (S.I. 138 of 2013), which amends the First Schedule of the EPA Act 1992. Again, these prescribed classes of activity pertain to operations that the waste will be subject to at the project site and/or third-party waste facilities that waste leaving the project site ultimately gets sent to.

The classes of activity, as defined under the First Schedule of the EPA Act 1992, as amended, which will be carried out at the project site are listed Table 3-3.

The treatment of healthcare waste using steam disinfection and mechanical shredding has been assigned as the main class of activity that will be undertaken at the project site.

**Table 3-3: Proposed Activities under the First Schedule of the EPA Act (as amended)**

| | |
|---|---|
| **Class 11.2 (b) (Main Activity)** | Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment. |
| **Proposed Activity Description** | Treatment of health care waste using steam disinfection and mechanical shredding, prior to dispatch to a third-party waste facility for a disposal or recovery operation. |
| **Class 11.1** | The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required. (Is an industrial emissions directive activity, in so far as the process development or operation specified in 11.1 is carried on in an installation connected or associated with another activity that is an industrial emission directive activity). |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste, prior to dispatch to a third-party waste facility for recovery or disposal. |
| **Class 11.2 (d)** | Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging prior to submission to any of the other activities listed in paragraph 11.2 or 11.3. |
| **Proposed Activity Description** | Re-packaging of healthcare waste, prior to dispatch to a third-party waste facility for recovery or disposal. |
| **Class 11.2 (f)** | Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving recycling or reclamation of inorganic materials other than metals or metal compounds |
| **Proposed Activity Description** | Treatment/re-packaging of healthcare waste (containing inorganic fractions), prior to dispatch to a third-party waste facility for disposal or recovery. |
| **Class 11.4 (a) (ii)** | Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving one or more of the following activities (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. 254 of 2001) apply): physico-chemical treatment |

| | |
|---|---|
| **Proposed Activity Description** | Treatment/re-packaging of health care waste, prior to dispatch to a third-party waste facility for a disposal operation. |
| **Class 11.4 (b) (ii)** | Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply): pre-treatment of waste for incineration or co-incineration. |
| **Proposed Activity Description** | Treatment/re-packaging of health care waste, prior to dispatch to a third-party waste facility for a disposal operation. |
| **Class 11.6** | Temporary storage of hazardous waste, (other than waste referred to in paragraph 11.5) pending any of the activities referred to in paragraph 11.2, 11.3, 11.5 or 11.7 with a total capacity exceeding 50 tonnes, other than temporary storage, pending collection, on the site where the waste is generated |
| **Proposed Activity Description** | Storage of healthcare and hazardous waste, prior to dispatch to a third-party waste facility. |

### 3.5.2 Proposed Waste for Acceptance and Facility Throughput

An overview of the type and quantity of waste to be accepted at the project site is provided in Table 3-4.

**Table 3-4: Proposed Waste for Acceptance and Facility Throughput**

| Waste Category | Examples of waste types that fall under this category | Waste management activity waste will be subject to | Throughout (Tonnes Per Annum) | Source/s of Waste |
|---|---|---|---|---|
| Healthcare risk and related wastes | Sharps, waste blood bags, dressings, plaster, PPE, casts, linen, disposable clothing | Treatment on-site and transfer off-site | 11,000 | Healthcare facilities (e.g., hospitals, GPs, medical centres etc.) |
| | | Re-packaging and bulking on-site and transfer off-site | 2,000 | |
| Hazardous wastes | Chemicals (e.g. cleaning products, paints, solvents, oils), medicines, PPE | Re-packaging on-site and transfer off-site (Note 1) | 2,000 | Healthcare, laboratory and commercial and industrial facilities. |

Note 1: Hazardous waste accepted at the facility will only be stored on-site before being collectively loaded onto dispatch vehicles for onward transfer. No hazardous waste bulking will be undertaken at the facility (i.e. hazardous waste containers will not be opened at any stage of the waste management process).

### 3.5.3 Proposed Facility Operations

#### *3.5.3.1 Hours of Operation*

The operational phase of the project will operate 24 hours a day, 7 days a week, throughout the year.

While the operational phase of the project is proposed to operate on a 24/7 basis, the vast majority of waste operations will occur during day-time and evening hours.

#### *3.5.3.2 Management and Staffing*

There will be 27 staff employed during the operational phase of the project. A breakdown of staff is provided below:

- 1 no. Facility Manager
- 1 no. Maintenance Manager
- 2 no. Team Leaders
- 8 no. Warehouse and Plant Operators
- 4 no. Sharps Management Service Operators.
- 12 no. Drivers
- 1 no. Service Supervisor

#### *3.5.3.3 Waste Management Operations*

Waste Acceptance

During the operational phase of the project waste will be accepted at in accordance with a Waste Acceptance Procedure defined under the EMS and IE Licence covering the proposed facility. An overview of the procedures is provided below:

- Waste pre-acceptance data will be obtained from customers to assist in characterising waste arriving on-site.
- Vehicle drivers will identify/verify the type and quantity of waste at the point of collection, and will check that the waste has been correctly packaged and labelled/tagged. They will complete a Waste Transfer Form during this process, which will accompany the waste during transfer.
- On arrival at the facility, the drivers of vehicles transferring waste to the facility shall reverse to/through station/roller doors situated to the rear of the building, park in designated park areas, make themselves known to operative/s with responsibility for waste intake, and provide the Waste Transfer Form to the operatives.
- Before accepting waste on-site, operative/s shall confirm if there is sufficient designated storage capacity on-site to accept the waste. If there is insufficient capacity to accept the waste into the facility, the driver shall be asked to wait. The waste shall only be offloaded once sufficient capacity is available.
- A visual inspection of the inside of vehicles transferring waste to the site will take place, to ensure waste is being stored properly. Waste stored improperly or in damaged contained shall be appropriately re-packaged before being unloaded into the facility.

- A visual inspection of all waste containers unloaded from vehicles will take place, to ensure that the waste type contained within a container is as per the identifiable tag or label on the exterior of the container, and to ensure waste is directed correctly for either treatment or storage for transfer.
- Digital tags will be used on waste containers to track, identify and characterise waste containers. These tags will also be checked when waste is being unloaded. These are known as 'BioTrack tags' and are managed under Stericycle's bespoke information system.
- All waste being treated on-site (not a representative number of containers) will be subject to careful further inspection as it's being unloaded into the treatment process, to ensure only wastes authorised for re-packaging on-site are put through the treatment process.
- Any non-conforming wastes (wastes that are not authorised for acceptance under the IE licence) that arrive at the facility will not be offloaded from vehicles/accepted at the facility.
- Any non-conforming wastes identified during waste handling inside the facility will be loaded into a separate sealed container and placed in a contained waste quarantine area inside the building. A Waste Non-conformance Report will be produced which will conclude the appropriate management option for the non-conforming waste (i.e. dispatch to an appropriate, authorised third-party waste management facility for appropriate management).

Waste Storage

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.

Treated waste residues will be stored in contained trailers that can be sealed and hauled-off site via HDV.

Healthcare waste which has been subject to treatment/re-packaging will be stored in designated storage areas for a maximum of 36 hours before being transferred off-site to appropriately authorised third party waste management facilities. Other packaged hazardous waste on-site will be stored for a maximum of three months before being transferred off-site.

Incompatible wastes and wastes which can contaminate other wastes will be physically segregated and stored in their own sealed waste containers. Waste types for separate storage will be identified by BioTrack tags.

All wastes received on-site will be stored by one of the following means:

- In 770 litre wheeled carts that are lockable, fully enclosed and leak-proof.
- On pallets in UN approved primary packages that are stacked upright and secured.
- In other approved containers such as re-usable sharps containers with their associated carts/cages.
- In a designated, bunded storage area inside the building or in a secure container (hazardous wastes only e.g., chemicals etc).

Healthcare Waste Treatment and Transfer Operations

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.

The waste treatment process (using steam disinfection and mechanical shredding) has a design throughput of 2 tonnes per hour. A description of the treatment process stages is provided below:

a) Waste is loaded into the inspection hopper directly from the 770 litre wheeled carts used to transport and store the waste. This is a mechanical process to minimise manual handling of the waste. The waste is then visually inspected in the hopper, with any non-conformant waste identified being removed and reported as specified in the relevant management system procedure.

b) After inspection the waste is transferred from the inspection hopper and into the treatment process loading hopper above the shredder. This is a mechanical process to minimise manual handling of the waste. Following each movement of the treatment process loading hopper, a mechanical door on the main hopper (above the shredder) closes to retain bio-aerosols and stays closed whilst the shredder operates.

c) The waste then passes directly into a four-shaft shredder designed to a 38mm cut. The shredder is designed to cope with all permitted wastes including small metal items commonly found in the non-medicinal sharps waste stream. The shredder is maintained under negative pressure, with air from the process being transferred via ducting located above the loading hopper to the air abatement system.

d) The shredded waste is then transferred through the treatment chamber, an enclosed elongated tube containing an auger screw which mechanically moves the waste flock (the shredded waste material is known as flock) through the process. Steam is injected into the chamber at several points along the auger to provide the necessary heat and moisture to disinfect the waste. Temperature monitoring points are located along the auger and at the discharge point.

e) An integrated SCADA system monitors and controls the plant temperatures, steam injection rates and auger rotation speed to ensure that the plant is maintained within validated parameters during all hours of operation. The system records and archives all data.

f) The shredded, inactivated waste flock is then discharged into a trailer where it is stored prior to transfer off-site for management at appropriately authorised third-party waste management facilities. The residual steam is transferred to the air abatement system.

An automated Sharps Container Management System will be operated at the site in a dedicated area. This will consist of a small-scale automated sharps handling, conveyance and container washing system, and will promote the re-use of re-usable sharps containers arriving at the facility.

Proposed Traffic Management

An overview of the proposed Traffic Management for the operational facility is provided below:

- Security gates are located at the access points to the rear service yard and loading doors/docks to restrict access to this area to commercial vehicles only.
- Employee and visitor cars may access from any direction and will park (reverse parking) only in the designated car parking areas within the site on the east and southern sides.
- Commercial vehicles will enter the site approaching southbound only, turning right from the roadway into the site.
- From there all commercial vehicles will proceed to the security gate on the south side of the building.
- Once inside the service yard all vehicles will drive forward towards the western perimeter before reversing onto one of the designated loading bays. Trained banksmen will be used when appropriate.
- All vehicles will then drive forwards away from the loading bay.
- Small vans (up to 3.5 tonne) may then exit from either the north or south security gate.
- Large commercial vehicles (over 3.5 tonne) may only exit via the south security gate as the north side access route is too small for larger vehicles.
- All commercial vehicles will exit the site in a southbound direction only, turning right onto the roadway from the site.
- No commercial vehicles will approach and enter the site in a northbound direction, or will exit the site in a northbound direction (so as to prevent the swept path of the vehicle straying onto the right hand (opposite) side of the highway.

Proposed Processing Plant

An overview of waste processing plant that will be used at the proposed facility:

- Waste Treatment Plant and Associated Plant and System:
  - Pre-Tipper System
  - Waste Bucket Lift Systems
  - M85 (SSI) Shredder
  - Steam Injection Auger
  - Transfer Screw
  - Reversible Exit Screw
  - Steam Generation Boiler
  - Hydraulic Power Pack
  - Air Abatement System
  - Water Filter System
  - Overband Magnet / Metal Separation
  - Air Compressors
  - 2 no. Bin Washers
  - CAT5 Cold Water Storage Tank

- Sharps Containment Wash Plant
- Mobile Plant
  - 1 no. Forklift (Electric)

### 3.5.4 Facility Licensing, Operational Controls and Environmental Controls

Waste management activities associated with the project will be regulated under an IE Licence granted by the Environmental Protection Agency (EPA) - in accordance with, the Industrial Emissions Directive (2010/75/EU) as amended by Directive (EU) 2024/1785; the European Union (Industrial Emissions) Regulations (S.I. 138 of 2013); and, the Environmental Protection Agency Act, 1992 (as amended).

This authorisation will allow for the continued regulation and control of the proposed waste activities to be undertaken on site. The following aspects of the project will be controlled through this authorisation:

- Control of emissions to air and sewer;
- Control of noise emissions;
- Monitoring of emissions and the receiving environment;
- Resource use and energy efficiency;
- Waste acceptance and quarantine;
- Waste storage, handling and processing operations;
- Waste records;
- The condition of the site;
- Changes to the operations and the physical fabric of the facility;
- Facility management including the requirement for an environmental management system (EMS);
- Environmental management techniques;
- Infrastructure management and maintenance;
- Accident prevention and emergency response including fire water retention; and,
- Operational controls.

The IE Licence for the operational phase of the project will require that Best Available Techniques (BAT)[5] are implemented to ensure a high level of environmental protection.

- Best Available Techniques are defined in Article 3(10) of the Industrial Emissions Directive (2010/75/EU), as amended by Directive (EU) 2024/1785, as 'the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole';

[5] Defined by the EPA as the *'most effective techniques available to a particular industry sector to achieve a high general level of protection of the environment'.*

- 'Techniques' include both the technologies used and the way in which they are designed, built, maintained, operated and decommissioned;
- 'Available' means developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Union, as long as they are reasonably accessible to the operator; and
- 'Best' means most effective in achieving a high general level of protection of the environment as a whole, including human health and climate protection.

The operational phase of the project will operate in accordance with the standards defined in the following:

- European Commission – Reference Document on Best Available Techniques for Energy Efficiency (BREF Document), 2009;
- EPA – BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery – December 2011;
- European Commission - Best Available Techniques (BAT) Reference Document for Waste Treatment (BREF Document), 2018;
- Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council, 2018; and,
- European Commission - JRC Reference Report on Monitoring of Emissions to Air and Water from IED Installations, 2018.

The IE Licence will require the Applicant to carry out the following at the project site:

- Develop and implement Environmental Management System and Energy Management System;
- Implement waste acceptance, inspection and recording procedures;
- Establish and operate a dedicated waste quarantine area;
- Store waste in a safe, secure and appropriate manner;
- Manage drainage in a manner that prevents polluting discharges from the site;
- Record and report on energy usage;
- Establish and maintain a firewater retention system on-site;
- Implement an environmental monitoring programme on-site, which will cover stormwater discharge monitoring, air emission monitoring, groundwater monitoring and noise monitoring in the surrounding environment.
- Provide appropriate secondary retention system (bunding) for hazardous material stored on-site;
- Adopt and implement pest and litter control procedures;
- Appropriate segregated and manage waste generated on-site; and,
- Manage traffic on-site.

### 3.5.5 Facility Traffic

The following vehicles will be used to transfer waste during the operational phase of the project:

- Commercial 7.5 tonne truck.
- Commercial 18 tonne truck.
- Commercial 44 tonne truck.
- Commercial 60 tonne truck (Arctic).

The following vehicles will be used to transfer waste from the project site:

- Commercial 60 tonne truck (Arctic).

Employees will travel to and from the project site via their personal cars or company cars.

One (1) no. Forklift will be operated at the project site.

Traffic movements at the site will be controlled by an Operational Traffic Management Plan.

### 3.5.6 Waste Generation at the Facility

The following types of waste will be generated on site in limited quantities as a result of project operations and ancillary on-site activities:

- Mixed Municipal Waste.
- Food Waste.
- Mixed Dry Recyclables.
- Green Waste.
- Incidental Waste (e.g., Waste Electrical and Electronic Equipment, Fluorescent Tubes, Batteries, Bulky Waste, Glass, Metals, Oils etc.)

All non-process related wastes generated on site will be appropriately segregated, temporarily stored on site and dispatched off-site for management at appropriate third-party waste management facilities. Wastes generated on site will be managed in accordance with circular economy principles and as 'high up' the Waste Hierarchy defined under in the Waste Framework Directive (2008/98/EC) as possible.

### 3.5.7 Resource Use and Storage at the Facility

An overview of the principal resources that will be used and stored at the project site during operations is provided in Table 3-5.

**Table 3-5: Resource Use and Storage at the Facility**

| Resource | Resource Use Per Annum | How the Resource is Used | Maximum Amount On-site |
|---|---|---|---|
| Natural gas | Ca. 3,000 MWh | To fire steam generation plant for treatment process | N/A |
| Electricity | Ca. 90 MWh | To drive treatment plant, ancillary plant and mobile plant, and to power building electricity | N/A |
| Water | Ca. 7,000 m3 | To supply the boiler and the container washer | N/A |
| Activated carbon granules | 400 kg | Carbon adsorption filter unit | 400 kg |
| Biotrickling filter nutrient | 250kg | Biotrickling filter unit – dosed to maintain efficacy during plant maintenance shut downs | 250 kg |
| Boiler water treatment chemical | 300 litres | Dosed to boiler water to reduce hardness / scaling | 100 litres |
| Detergents | 4,000 litres | Use for container washing and cleaning of site surfaces | 1,200 litres |
| Hydraulic and silicone based oils | 2,500 litres | Used for general site maintenance | 1000 litres |

All liquid resources will be stored appropriately on or in secondary retention systems/structures and will be used in accordance with their Material Safety Data Sheets (MSDSs). The Emergency Preparedness and Response Plan for the project will itemise the quantify and location of chemicals and oils stored on-site.

## 3.6 Decommissioning Phase

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

The following closure and decommissioning tasks will be completed under this Closure Plan:

g) All materials and wastes will be wound down gradually prior to closure and removed for recovery/recycling or disposal at an appropriately authorized waste management facility.

h) All waters collected on site will be collected and removed for treatment at authorized wastewater treatment plant

i) All hard-standing areas and drainage systems including interceptors and underground tanks/chambers will be cleaned and washed down.

j) Plant, equipment and tanks will be safely decontaminated/cleaned using standard procedures and competent contractors/staff.

k) All plant and equipment present on-site will be decommissioned and either resold, reutilized at a separate site operated by the applicant, or scrapped.

l) Office and staff facilities will be cleaned and emptied of all documents and IT equipment previously associated with the operation of the waste facility.

m) The building, concrete hardstanding, drainage systems, boundary/treatment/landscaping and fencing will be left in-situ.

n) Environmental monitoring, inspection and management will be undertaken during closure to confirm that closure and decommissioning tasks do not generate emissions to environmental harmful to receiving environmental media (e.g., ambient air, soil, groundwater, surface water).

Records relating to waste management, material management, and environmental management, monitoring and assessment will be retained by the applicant.

# 4. EXISTING ENVIRONMENT

The project site 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 project site. Further information on habitats is provided in Chapter 8 - Biodiversity, of Volume 2 of the EIAR.

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 part is surrounded by artificial surfaces (urban developments and roads), agricultural grasslands (improved grassland, dry grassland, and cultivated land) and fragmented areas of broadleaved forest and woodland.

There are no habitats within the project site that conform to those listed under Annex I of the EU Habitats Directive. There were no signs during the site walkover and no desktop (W67H and W67I) records of any fauna that conform to those listed under Annex II or IV Habitats Directive.

The project site lies within the Water Framework Directive (WFD) catchment HA 19 known as the Lee, Cork Harbour and Youghal Bay catchment and is located within the Manin_SC_010 WFD sub-catchment and the MARTIN_040 sub-basin. According to the Cycle 2 Report for Manin_SC_010 (January 2019[6]), the biological status of the MARTIN_040 sub-basin is 'Moderate' (Q 3-4) and it is at risk of failing to meet the Water Framework Directive (WFD) objectives of 'Good' by 2027. According to the Cycle 2 report MARTIN_040 sub-basin is under pressure from urban run-off (diffuse sources run-off).

A SuDs stormwater drainage system collects rainwater from the Blarney Business Park. A drainage ditch located 95 m from the project site to the west of Blarney Business Park is culverted under the N22 where it drains into the Shean Upper Stream (IE_SW_19M010600 ) ca. 230 m south-west of the site. See Figure 10-1 of Chapter 10 – Hydrology and Surface Water for location of the Shean Upper Stream. The Shean Upper Stream flows into Blarney Bog pNHA (located ca. 848 m downstream (mi-stream distance)) which comprises a fen/bog and lake habitats. No NPWS or NBDC records for protected aquatic/semi-aquatic species were found in the 2 km grid squares (W67H and W67I) which overlap with the project site, Blarney Business Park, Shean Upper Stream, and Blarney Bog pNHA. There are no IFI fisheries results for Shean Upper Stream or Blarney Bog pNHA.

Records for 11 bird species which are SCIs of SPAs were recorded within the NBDC 2km grid squares (W67H and W67I): Namely, Black-headed Gull (*Chroicocephalus ridibundus*), Common Gull (*Larus canus*), Cormorant (*Phalacrocorax carbo*), Curlew (*Numenius arquata*), Herring Gull (*Larus argentatus*), Lapwing (*Vanellus vanellus*), Lesser Black-backed Gull (*Larus fuscus*), Wigeon (*Mareca penelope*), Teal (*Anas crecca*), Grey Heron (*Ardea cinerea*), Little Grebe (*Tachybaptus ruficollis*). With the exception of Lapwing, Lesser Black-backed Gull, and Teal all other species are associated with 2km grid squares (W67H) which overlaps with the southern edge of Blarney Business Park and most species are likely associated with Blarney Bog pNHA located ca. 230 m (direct distance) south of the project. According to the Site Synopsis (27/11/2009) for Blarney Bog pNHA (001857), Hen harrier are regularly observed in the area of the pNHA hunting over wetter ground and sometimes nesting in reed beds.

[6] WFD Cycle 2, Catchment Lee, Cork Harbour and Youghal Bay, Subcatchment Manin_SC_010, Code 19_5 (08 Jan 2019). Visited October 2025: chrome extension chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://catchments.ie/wp-content/files/subcatchmentassessments/19_5%20Manin_SC_010%20Subcatchment%20Assessment%20WFD%20Cycle%202.pdf

# 5. SCREENING FOR APPROPRIATE ASSESSMENT

## 5.1 Identification of relevant European sites using Source-Pathway-Receptor model

The OPR practice note on appropriate assessment screening (Office of the Planning Regulator, 2021) states that the ZoI must be established on a case-by-case basis using the S-P-R model. In this regard, consideration is given to the nature and extent of the project and the characteristics of the immediate environment along with the consideration of potential pathways for connectivity to European sites, which are assessed having regard to available Geographic Information System (GIS) mapping and ecological site walkover.

### 5.1.1 Zone of Influence

As per CIEEM guidelines (2018), the ZoI for a project is defined having regard to the spatial and temporal scale of potential biophysical changes in the environment which might occur as a result of the development and throughout its lifetime. In considering such potential biophysical changes, the following was considered:

- The potential for biophysical change by disturbance/damage/ degradation to terrestrial habitats is taken as the footprint of the works (including site clearance and accommodation works) plus 50 m beyond (based on Ryan Hanley, 2014). There are no European sites located within 50 m of the project.
- For groundwater dependant terrestrial ecosystems (GWDTE), regard is had to SEPA guidelines which prescribes a zone for potential hydrogeological effects as 250 m from ground works. There are no European sites designated for the protection of GWDTEs located within 250 m of the project.
- The NRA (2008) 'Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes' notes a 150 m potential disturbance zone for otter breeding holts and 20 m for non-breeding active holts. As such a potential ZoI is taken as the project plus a 150m buffer. No NBDC records of Otter were found in the 2 km grid squares (W67H and W67I) and the closest waterbody to the project is the Shean Upper Stream, located ca. 230 m south-west of the project. Otter is a mobile species with a potential territory of 20 km (Marnell *et al*., 2011). However, in areas with an abundance of food and other resources territories are smaller (Kruuk & Moorhouse 1991). Of the European sites within a 20 km radius of the project, only Blackwater River (Cork/Waterford) SAC is designated for the protection of Otter and is located 14.6 km (direct distance) to the north of the project. The SAC is located within the Blackwater (Munster) WFD Catchment (18), whilst the project is located within the Lee, Cork Harbour and Youghal Bay (19) WFD Catchment. There is no S-P-R connectivity between the project and any QI Otter populations or SACs designated for Otter.
- The potential disturbance zone for birds was considered having regard to Cutts *et al*. (2013) and was defined as 500 m. There are no SPAs located within 500 m of the project. Consideration of connectivity or ecological continuity for birds is set out in Section 5.1.2.

- The operation of a VOC abatement system and a boiler will release air pollutant emissions (primarily NOx, carbon monoxide (CO) and VOC emissions). An assessment of air quality on ecological receptors (included Cork Harbour SPA; closest European site located ca. 9.7 km away) which includes dispersion modelling is provided in Chapter 11 – Air Quality, of Volume 2 of the EIAR. The assessment of effects on ecological receptors was undertaken in line with EPA (2024) 'Licence Application Instruction Note 2 (IN2) (DRAFT): Assessing the Impact of Ammonia Emissions to Air and Nitrogen Deposition from EPA licensable activities on European Sites'. Given that no European Sites are located within 250 m of the proposed development and no process contributions are greater than 1% of the relevant critical level at any of the modelled ecological receptors (Cork Harbour SPA), pathways for effects are ruled out. See Chapter 11 – Air Quality, of Volume 2 of the EIAR for further information).

### 5.1.2 Connectivity or Ecological Continuity

Connectivity or ecological continuity refers to the degree to which different parts of a landscape, ecosystem, or habitat are physically or functionally linked, allowing the movement of organisms, nutrients, energy, or ecological processes across space. Consideration is therefore given to whether there could be landscape[7] or ecological connectivity[8] to any QI or SCI species. In considering connectivity or ecological continuity the following is noted:

- The project constitutes a change of use of the site. There will be no land take. Proposed works included as part of the construction phase will only include additions/alterations to existing infrastructure on site (built lands). Furthermore the project site and larger Blarney Business Park comprise built land and highly maintained landscaped habitats which are not integral to the maintenance of the structure or function of any habitats within any European sites and do not form continuity with any such habitats.
- The Institute of Air Quality Management (Holman *et al.*, 2024) states that for sensitive ecological receptors, sensitivity to dust is 'High' up to 20 m from the source and reduces to 'Medium' 50 m from the source. The guidelines also stipulate that dust deposition from construction and demolition typically occurs up to 500 m from large sites, 200 m from medium sites and 50 m from small sites. Given the scale and the nature of the project (more a change of use, with only additions /alterations to existing infrastructure) a 50m ZoI for dust is adopted. There are no European sites located within the 50 m dust deposition zone.
- Considering potential for impacts on surface waters, regard is had to IFI (2020) guidelines which states that "The recommended [riparian] buffer zone width for larger river channels (>10 m) is 35 m to 60 m and for smaller channels (<10m) is 20m or greater". The closest waterbody to the project is the Shean Upper Stream which is located ca. 230 m south-west of the site (in-stream distance is greater. The Shean Upper Stream is not located within the zone of impact for direct impacts.

[7] Landscape connectivity is a combined product of structural and functional connectivity, i.e. the effect of physical landscape structure and the actual species use of the landscape.
[8] Connectivity is defined as a measure of the functional availability of the habitats needed for a particular species to move through a given area. Examples include the flight lines used by bats to travel between roosts and foraging areas or the corridors of appropriate habitat needed by some slow colonising species if they are to spread.

- There is theoretical connectivity between the project and Shean Upper Stream, via the existing SuDs stormwater drainage system. The stormwater discharge point is situated at the south-eastern corner of the project 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 a drainage system serving Blarney Business Park. This drainage system discharges to a drainage ditch located 95 m from the project site to the west of the business park. The drainage ditch is culverted under the N22 where it drains into the Shean Upper Stream. The stream then travels ca. 848 m (in-stream distance) and enters Blarney Bog pNHA (001857). The pNHA comprises multiple wetland habitats including a lake (19_66) which is likely to function as a natural 'settlement pond' for any silt or sediment entering up stream. It is important to note that there are no European sites located upstream or downstream of the Shean Upper Stream.
- However, it is important to emphasize that the existing stormwater drainage system design and functioning will not change and the existing utility connections (including the stormwater drainage system) are considered to be sufficient for accommodating the project. Furthermore, it is important to note that the construction phase will be limited to the addition/alteration of existing infrastructure (on built lands). The project has been designed in line with best practice and up-to-date waste management guidance (inline with waste related legislation) and when operational, waste management activities will be regulated under an IE Licence granted by the Environmental Protection Agency (EPA) - in accordance with, the Industrial Emissions Directive (2010/75/EU) as amended by Directive (EU) 2024/1785; the European Union (Industrial Emissions) Regulations (S.I. 138 of 2013); and, the Environmental Protection Agency Act, 1992 (as amended). 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 that would significantly and adversely change the composition of water runoff draining to the SuDs stormwater drainage system and therefore there will be no change in the current outfall from the SuDS stormwater drainage system. Additionally, the project will include the installation of firewater retention facilities inside the building; and will include automated barriers and an automatic shut-off to the foul drain to retain firewater in the case of a fire. The decommissioning phase will be carried out under a Closure Plan and the prospective IE licence for the project.
- Therefore, during the construction, operational and decommissioning phases of the project, the Shean Upper Stream will continue to receive site stormwater via the existing surface water drainage system which serves the site. However, there will be no contamination or deterioration of Shean Upper Stream from the construction, operational and decommissioning phases of the project.

- Regard was had to SNH (2016) 'Guidance on Assessing Connectivity with Special Protection Areas (SPAs)', and an initial study area of 20 km was adopted (based on the largest documented core foraging range for SPA bird species) in order to determine whether the bird species recorded within 2 km grid squares (W67H and W67I) as set out in Section 4 are associated with any SPA. Cork Harbour SPA is the only SPA located within this 20 km study area; located 9.7 km south of the site. Having examined the species for which the SPA is designated, along with their core foraging ranges and their typical foraging, roosting, breeding and wintering habitat associations, the following was determined in terms of landscape/ecological connectivity:

- Cork Harbour SPA is designated for 23 wetland/coastal/marine birds. Of the 23 species, six species recorded within 2 km grid squares (W67H and W67I) had foraging ranges which extend between the project and SPA (namely Black-headed Gull, Common Gull, Cormorant, Herring Gull, Lapwing, Lesser Black-backed Gull). It is important to note that with the exception of Lapwing and Lesser Black-backed Gull, the other four avian species were recorded in the 2 km grid square W67H which overlaps with the southern edge of the Blarney Business Park and encompasses Blarney Bog pNHA (001857). Given that these species are largely associated with wetland habitats it is likely that activity centres around the pNHA, which is located ca. 690 m south of the project and outside the 500 m zone of disturbance.
- Furthermore, the project site itself and immediate surrounds (the Blarney Business Park) are dominated by built lands and improved maintained landscaped strips of habitat. Blarney Business Park is an established business park characterised by commercial, light-industrial and industrial land use. The project and business park are sub-optimal habitats in terms of foraging for the avian SCIs of Cork Harbour SPA.
- The N20 runs to the immediate west of the Blarney Business Park and railway line runs directly north of the business park. Outside of the Blarney Business Park, and within the 500 m disturbance zone for birds, the landscape comprises dispersed rural one-off housing and agricultural land delineated by hedgerow with fragmented woodland mostly associated with the margins of the N20. A housing estate is located to the north-west of the site. The agricultural land may provide some foraging habitat for some of the generalist feeding species such as gull species. Agricultural land is located at 125 m from the project (at boundary to the business park).
- The SCIs which may use the agricultural grasslands surrounding the project (Lapwing and Lesser Black-backed Gull) are currently exposed to background levels ranging from 45dB to 59dB (See Chapter 13 – Noise & Vibration, of Volume 2 of the EIAR for further information). The use of construction plant equipment outside will be intermittent. The MAS Environmental 2006 Noise calculator[9] was used to estimate the noise level that would occur during the construction phase and possibly the decommissioning phase of the project. The weighted sound pressure level (dB at 10m) was sourced from the BSI (2014) 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise', for three elements of the mobile plant which will be used during the construction phase: namely mobile elevated working platform (67 dB), mini-crane (77 dB), and Telehandler (70 dB). The receptor distance was set at 125 m, the distance to the closest area of open habitat outside of the Blarney Business Park (comprising agricultural fields to the east). A combined total (worst case scenario) was calculated. The combined total Leq at 125 m (closest potential receptor) from the project was 53 dB (please note that most works will be undertaken inside the building, however the tool calculated for outdoor use and a worst-case scenario) which is largely below baseline ambient noise levels. The SCI species will therefore have no response to noise levels and therefore there is no S-P-R connectivity between the SCIs which may potentially use the surrounding agricultural fields and the project.

- On the basis of the above, it is assessed that Cork Harbour SPA is located outside the ZoI of the project as there is no functional connectivity with the project that could cause adverse effects to its SCI species and the conservation objectives of the SPA.

[9] MAS Environmental 2006 Noise calculator: Multiple Noise Sources Calculator - Point Source Model - NoiseTools.net

## 5.2 Summary of S-P-R Assessment

In identifying European sites which may be affected by the project, the following is concluded:

- There are no European sites geographically overlapping with any of the actions or aspects of the project in any of its phases, or adjacent to them.
- There are no European sites located within the likely zone of influence (ZoI) of the project.
- There are no European sites whose connectivity or ecological continuity can be affected by the project.

## 5.3 Assessment of Likely Significant Effects

As stated in Section 5.2 there is no S-P-R connectivity between the project and any European Sites for any likely significant effects.

## 5.4 In combination Effects

Article 6(3) of the Habitats Directive requires that:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".*

It is therefore required that potential impacts of the project are considered in-combination with any other plans or projects within the zone of influence. The consideration of in-combination effects with other plans or projects, focuses on the sources of impacts identified for the project and any ecological pathways to European Sites as per the S-P-R assessment. However, given that there are no meaningful pathways for effects identified with respect to European sites from the project, there can be no in-combination effects. As such, no further consideration is required as the S-P-R model has been completed with no potential effects that could arise.

# 6. CONCLUSION

The Appropriate Assessment Screening Report concludes that, given the scale and nature of the potential sources, there are no likely significant effects identified to any European sites. This process has considered potential effects which may arise during all phases of the project. Through an assessment of the pathways for effects and an evaluation of the sources for impacts, taking account of the processes involved and the ZoIs, it has been evaluated that there are no likely significant effects on the QIs, SCIs or the conservation objectives of any designated European site as a result of the project on its own or in combination with other plans or projects.

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# APPENDIX 1

## Statement of Authority

| Surveyor | Role | Biography |
|---|---|---|
| Kate O'Regan | Ecologist, author, site surveyor | Kate O'Regan is a Project Ecologist with three years' experience in consultancy with FT. She holds a first-class BSc. in Zoology and first-class MSc in Marine Biology from University College Cork. Since joining Fehily Timoney, Kate has prepared Appropriate Assessments and Ecological Impact Assessments for waste facilities and road improvement schemes along with ornithological chapters and collision risk models for renewable energy projects. Kate has previous experience in data management, statistical analysis, mapping and technical report writing. Kate has also completed a wide range of site work including habitat, bird, bat, freshwater aquatic, intertidal, subtidal, insect and mammal surveys. |
| Donna O'Halloran | Ecologist, lead author | Donna is a Senior Ecologist working as part of the Circular Economy and Environment Team at FT. Donna holds a MSc. First Class Honours in Ecological Assessment, a MSc. First Class Honours in Environmental Resource Management, a BSc (Hons) in Landscape Horticulture and a National Diploma in Horticulture. Donna has over 10 years' experience preparing Appropriate Assessment Screening Reports, Natura Impact Statements (NIS) and Ecological Impact Assessment (EcIA) Reports for energy, circular economy and infrastructure projects. Donna has experience undertaking Appropriate Assessment (AA) and EcIAs of forestry related applications on behalf of the Minister of Department of Agriculture, Food and the Marine. Donna also has experience assisting County Councils and Government Departments in their delivery and implementation of planning services, reviewing the EcIA reports/ Biodiversity Chapters of EIARs, AA Screening Reports and NIS Reports of received planning applications. |
| Barbara Kasl | Ecologist, reviewer | Barbara is a Senior Ecologist working as part of the Energy and Planning Team at FT. Barbara holds a B.SC.Hons in Zoology and a PhD in Animal, Plant and Environmental Sciences from University of the Witwatersrand (Johannesburg, South Africa). She has 20 years' in the environmental and consulting sectors, predominantly as a terrestrial fauna specialist and behavioural ecologist, with experience in impact assessment and associated technical reporting across various projects, including mining and processing, renewable energy, servitudes (roads, pipelines, powerlines), supporting infrastructure and town-related development (housing and industrial). |

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