

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Volume I Non-Technical Summary

STARRUS ECO HOLDINGS LTD

Ballymount Road Upper
Dublin 24



December 2023

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NON TECHNICAL SUMMARY

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

MATERIALS RECOVERY FACILITY

BALLYMOUNT ROAD UPPER

DUBLIN 24

Prepared For: -

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December 2023

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1. NON-TECHNICAL SUMMARY

1.1 Introduction

This Non-Technical Summary provides an overview of the proposed development, the scope of the environmental assessment completed, the findings of that assessment, the prevention, mitigation and monitoring measures that will be applied to prevent and/or minimise the impacts, and an evaluation of the residual impacts. It uses, in so far as possible, non-technical language and is for information purposes only to guide readers to the sections of the Environmental Impact Assessment Report (EIAR) that contain the detailed assessments of the impacts of the proposed development.

1.2 Proposed Development

Starrus Eco Holdings Ltd. (SEHL), which is the holding company for Panda and Greenstar, intends to apply to An Bord Pleanála for planning permission for the redevelopment of its Environmental Protection Agency (EPA) regulated waste management facility at Ballymount Road Upper, where household, commercial and construction and demolition wastes are processed to separate out the recoverable and recyclable materials.

The current planning permission and EPA licence limits the annual waste intake to 150,000 tonnes and it is proposed to increase the annual intake to 350,000 tonnes. This requires the provision of additional processing capacity, which will be achieved by demolishing the setting waste processing building and offices, constructing a new processing building and installing new processing equipment.

1.3 Environmental Impact Assessment

The European Union (EU) Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment is known as the Environmental Impact Assessment (EIA) Directive. Its objective is to ensure that developments that are likely to have significant effects on the environment are the subject of an assessment of their likely impacts.

When preparing a planning application for a development the first step is to confirm if the proposed project is one of the activities listed in Annex II of the EIA Directive. If it is, then an EIAR be must be prepared.

The proposed development falls into a category listed in Annexe II of the Directive - Installations for the disposal¹ of waste (projects not included in Annex I), but is of a type where the need for EIA is based on a threshold. The threshold, as specified in Class 11 (b) of Part 2 of Schedule 5 of the Planning and Development Regulations, is an annual intake of more than 25,000 tonnes. As the new facility will accept more than 25,000 tonnes of waste annually an EIA is required.

The purpose of an EIAR is to report the impacts, if any, that a proposed development will have on the environment. The EIA Directive requires an EIAR to describe the likely significant impacts on:

¹ For the purposes of the Directive the term disposal includes recovery.

- Population (local services, economic activity);
- Human health (impacts on air quality, likelihood of nuisances and risk of major accidents and natural disasters);
- Biodiversity (habitats, flora, fauna, and sites that have national and international important ecological value);
- Land and soil including loss of land used for food production or recreation);
- Water (streams ,rivers and groundwater);
- Air, including air quality issues that can affect people’s health;
- Climate, including the implications for climate change;
- Material assets (roads, water supplies, wastewater treatment, energy supplies);
- Cultural heritage (protected archaeological features and buildings);
- Landscape, and
- Interactions between the above.

This EIAR was prepared in accordance with European Commission’s Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report (2017) and the Environmental Protection Agency’s (EPA) Guidelines on the Information to be contained in Environmental Impact Assessment Reports (2022).

Early anticipation is the most effective means of avoiding negative impacts. This requires forming preliminary opinions on the approximate significance, extent, duration and type of the likely impacts that can then be considered at the design stage to identify the measures required prevent or minimise (mitigate) i.e. ‘design out’ adverse impacts.

Impacts are assessed in terms of the likely changes to the environment resulting either directly, or indirectly from the proposed development. Where possible, the impacts are described in terms of quality, significance, extent (magnitude), probability, duration, and type, as defined in the EPA’s 2022 Guidance.

It is not always either possible, or practical to prevent all adverse impacts and those that remain after mitigation are referred to as ‘Residual Impacts. These are the impacts that cannot be reasonably avoided and are a key consideration in deciding whether or not a development should be granted planning permission.

1.4 Consultation

SEHL consulted with An Bord Pleanála, South Dublin County Council, and Uisce Eireann as part of the pre-planning application process.

1.5 Project Team

The Project Team Members are listed in the Table below. O’Callaghan Moran & Associates (OCM) was the EIA Team Leader. All Team Members have the relevant qualifications and experience to meet the competent expert requirements of the EIA Directive.

Chapter	Title	Prepared By	Contributor
1	Introduction	OCM	
2	Site Description	OCM	
3	Development Description	OCM	SEHL
4	Alternatives	OCM	SEHL
5	Climate	Katestone	Systra
6	Land & Geology	OCM	
7	Water	OCM	ORS
8	Biodiversity	Dixon Brosnan	Katestone/MKO
9	Air	Katestone	Systra
10	Population & Human Health	OCM	Katestone/ MKO
11	Landscape & Visual Impact	OCM	Redline Studios
12	Cultural Heritage	OCM	
13	Materials Assets: Built Services	OCM	ORS
14	Material Assets: Traffic & Transport	Systra	
15	Interaction of the Foregoing	OCM	

1.6 Difficulties Encountered in Compiling the Required Information

Where difficulties were encountered in compiling the required information these are described in the relevant Chapters.

2. EXISTING SITE DESCRIPTION

2.1 Site Location and Layout

The site location is shown on Figure 2.1. It is in the southern end of Ballymount Industrial Estate, to the east of the M50 and south of the Naas Road R110. Access is off the Ballymount Road Upper which runs along the south-western boundary. It is in an area zoned for employment and enterprise (EE) in the South Dublin County Development Plan 2022-2028.

The existing site layout is shown on Drawing No.221244-ORS-ZZ-00-DR-AR-200. It covers 1.18ha and slopes gradually from southeast to northwest. It is occupied by a waste transfer building (1,648m²) comprising two adjoining units, a two storey office block (612m²), two weighbridges, portakabins, an above ground fuel storage tank, truck wash and paved operational yards and parking areas.

There are an open construction and demolition waste storage bay to the north and a timber storage bay to the east of the processing buildings. The entire site is paved, with the exception of some landscaped areas along the front, side and scrub to the rear. There is a palisade fence along the south eastern, northern and western boundary, with a block wall along the north eastern boundary.

2.2 Surrounding Land Use

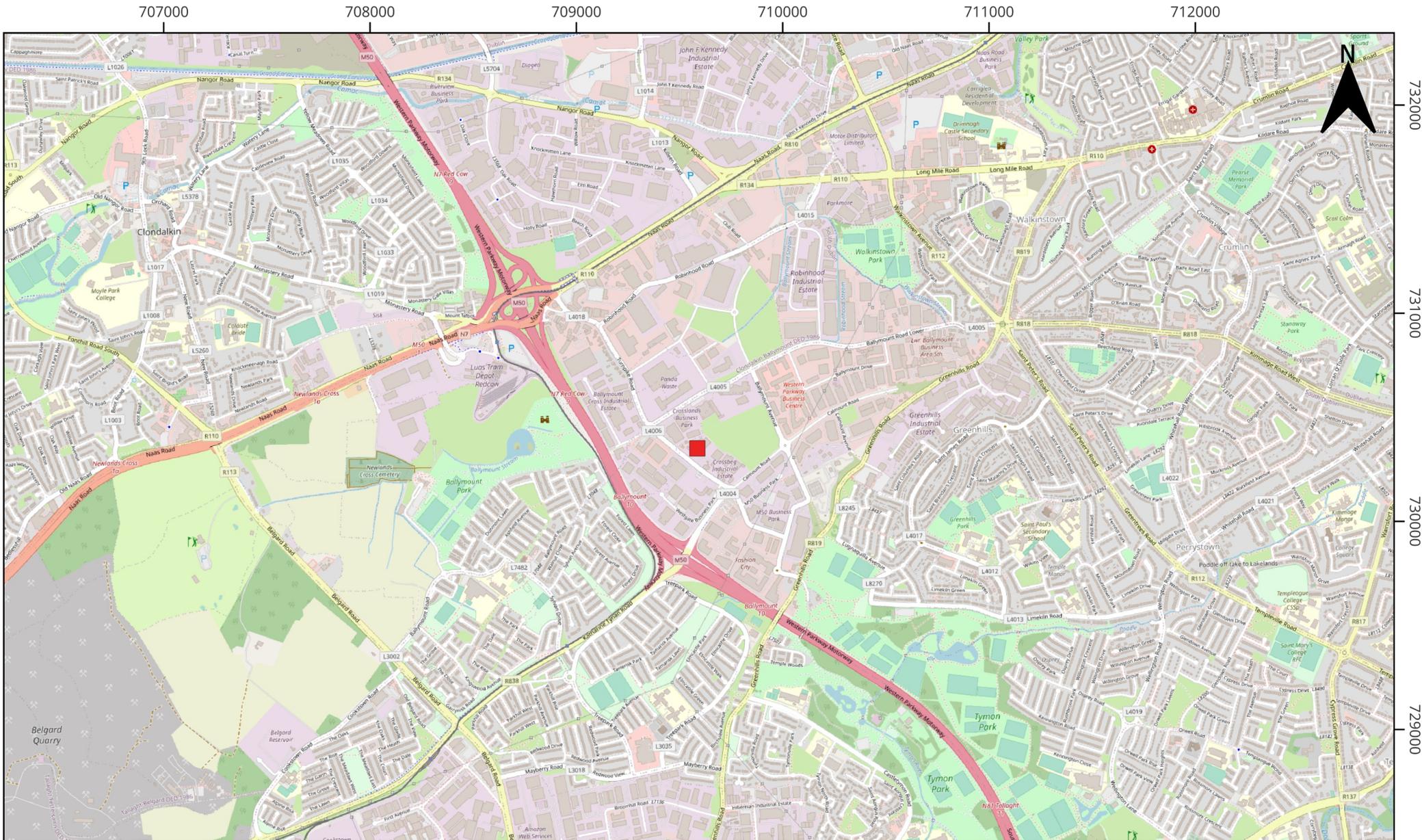
The land use surrounding the site is predominantly commercial and industrial, as shown on Figure 2.2. The closest large residential areas are approximately 440 m to the west and 800m to the south-east, with the closest individual private residence approximately 40m from the eastern boundary. The lands to the east and north east are currently used for animal grazing; however planning permission has been granted for the development of this site comprising 5 warehouse/logistics units, 3 office buildings and a café/restaurant.

2.3 Site Services

The site is connected to the mains electrical and telecoms supply and the Uisce Eireann water mains supply, storm sewer and foul sewer networks. There is no flow attenuation on the rainfall run-off to the storm sewer.

2.4 Waste Activities

The facility has permission to accept and process 150,000 tonnes of non-hazardous, household, including kerbside collected residual waste (black bin) food waste (brown bin) and mixed dry recyclables, commercial and industrial waste and construction and demolition wastes. Hazardous wastes and liquid waste are not accepted. It is authorised to operate 24 hours a day, 7 days a week.




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CLIENT Starrus Eco Holdings Ltd.

TITLE Site Location

DETAILS

■ Site Location

0 500 m



FIGURE 2.1

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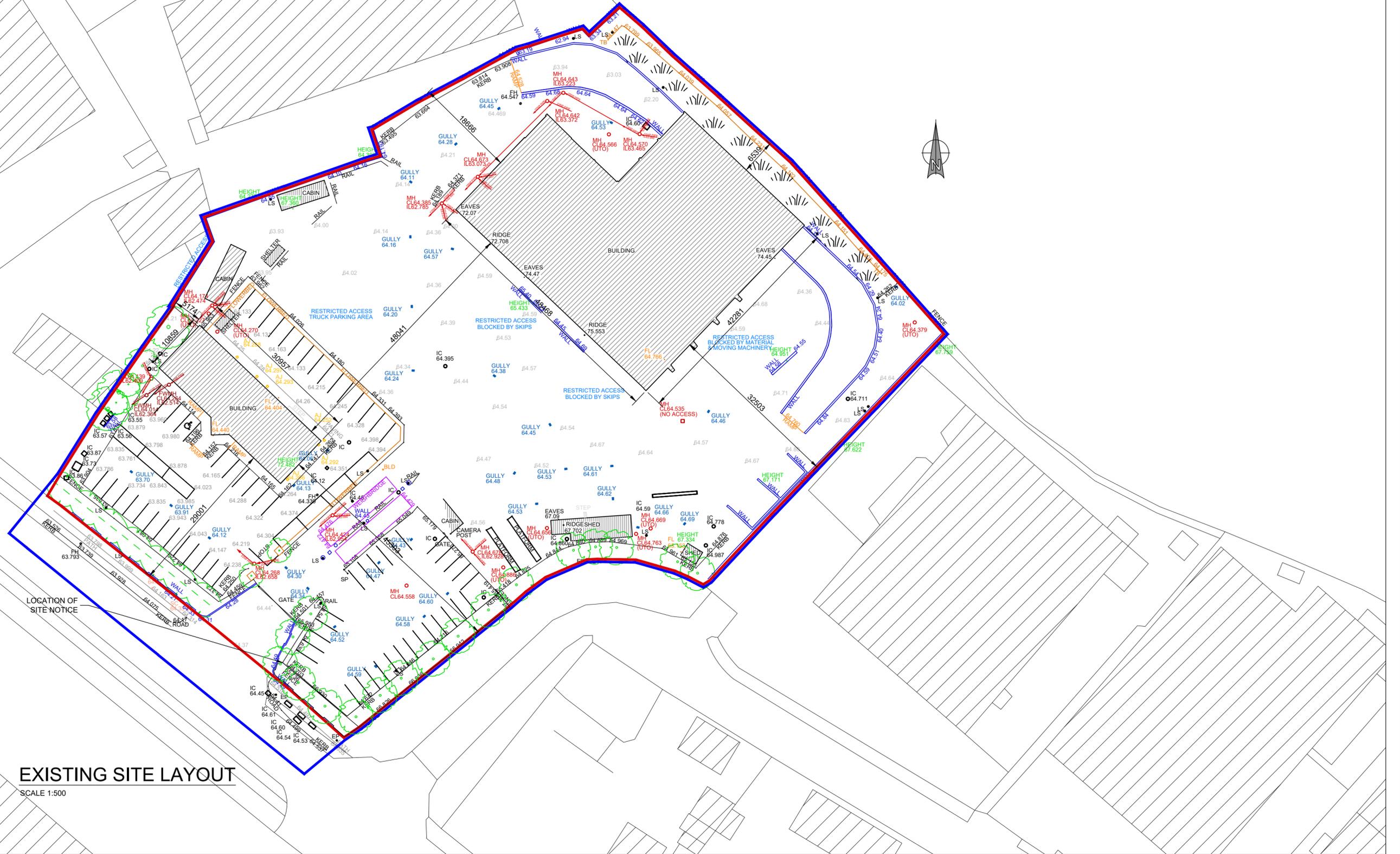
TITLE
 Surrounding Land Use

DETAILS
 Site Boundary

0 100 m


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FIGURE 2.2



EXISTING SITE LAYOUT
SCALE 1:500

INFORMATION

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Figured dimension only to be taken from this drawing. All dimensions to be checked on site. Consultants to be informed immediately of any discrepancies before work proceeds.

REV NO:	DATE:	REVISION NOTE:	DWN BY:	CKD BY:
P01	02/10/2023	ISSUED FOR COMMENT	CB	CB
P02	01/12/2023	ISSUED FOR PLANNING	CB	CB

CLIENT:	STARRUS ECO HOLDINGS LIMITED (SEHL)			
PROJECT:	BALLYMOUNT ROAD UPPER, DUBLIN 24			
TITLE:	EXISTING SITE LAYOUT			
DRAWN:	CHECKED:	APPROVED:	JOB NO:	REV:
CB	CB	OD	221244	P02
DATE:	SCALE:	DRAWING NO:		
01/12/2023	1:500	221244-ORS-ZZ-00-DR-AR-200		

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The wastes are delivered to and removed from the facility in heavy goods vehicles. All the wastes are weighed at the on-site weighbridge and then are off-loaded inside the buildings, where they are processed to separate the recyclable materials (paper, cardboard, plastic, metal and wood) from the non-recyclables. The recyclables are sent to recycling plants. The food waste is transferred to biological treatment plants e.g. compost and anaerobic digestion plants.

Diesel for use in the waste transport trucks and the diesel fuelled mobile plant is stored in above ground tanks located in a retaining bund.

2.5 Environmental Emissions, Controls & Monitoring

Emissions include vehicle exhausts, dust, noise and odours, washwater from the truck wash, sanitary wastewater from the staff toilets and rainwater run-off. The EPA licence sets out the control measures that must be applied to ensure these emissions do not cause pollution. The licence also requires surface water, foul water, dust deposition and noise monitoring at specified monitoring locations and sets emission limits that must not be exceeded.

2.6 Safety and Hazard Control

SEHL has prepared an Accident Prevention Policy to minimise the risk of accidents occurring and an Emergency Response Procedure that specifies roles, responsibilities and actions required to deal quickly and efficiently with all foreseeable major incidents and to minimise their associated environmental impacts.

2.7 Accidents & Emergencies

SEHL has, in accordance with the requirements of the EPA licence, completed an Environmental Liability Risk Assessment that identifies the likely accidents that could occur, assessed the associated environmental effects and the required actions to remedy those effects. Based on the types of waste that are and will be accepted and the activities carried out, the only accident that presents a significant risk of environmental pollution is a fire.

2.8 Decommissioning

SEHL has, as required by the EPA licence, prepared a Decommissioning Plan that identifies the actions that will be taken in the event of the closure of the facility. These include the removal of all wastes and materials, clean out of the processing buildings, office and maintenance garage, cleaning of storm sewers and oil interceptors and disconnection of services and the submission of an application to the EPA to surrender the licence. SEHL has also, as required by the EPA licence, agreed a financial provision with the EPA to finance the decommissioning works.

3. PROJECT CHARACTERISTICS

3.1 Proposed Layout

The proposed layout is shown on Drawing No. 221244-ORS-Z0-00-DR-AR-203. There will be a new waste processing building (4,710m²) including staff welfare facilities and a small site office, an electricity substation, acoustic barrier, two relocated weighbridges, a noise barrier along the south-east boundary and new foul and surface water drainage systems.

3.2 Roads

The site will continue to be accessed directly from the Ballymount Road Upper via a relocated entrance.

3.3 Building Design & Layout

The building will have a steel frame structure, with metal cladding on the walls and roof. It will be 11.02m to the eaves, with an upper ridge level of 13.30m above ground level. Roller shutter doors and an Odour Control Unit (OCU) will be located on the south-east side. Solar panels will be mounted on the roof.

3.4 Facility Management

The management team will have the appropriate training and experience and all staff will be provided with the appropriate training to complete their assigned tasks.

3.5 Operational Hours & Staffing

The site will operate 24 hours a day, 7 days a week and there will be approximately 20 full time staff.

3.6 Materials Recovery Facility

3.6.1 Materials Intake

As is currently the case, all wastes will be subject to a documented acceptance procedure that requires recording details of the source of the wastes, the type of waste, the quantity and the delivery vehicle registration number. The wastes will be delivered by waste collectors that have up to date waste collection permits and wastes will not be accepted from members of the public.

3.6.2 Processes

The waste will be off loaded in dedicated reception areas, where they will be inspected and unsuitable materials removed and brought to a quarantine area. The materials will then be processed to separate the recoverable/recyclable from the non-recoverable/recyclable. The black bin processing line will

include a bag shredder, trommel, overband magnet, eddy current separator and wind sifters to remove organic fines, ferrous and non-ferrous metals and plastics/paper (lights).

The metals will be sent to authorised metal recycling facilities. The organic fines will be sent to authorised biological treatment facilities (composting and anaerobic digestion plants). The lighter materials (e.g. plastic/paper/cardboard) that are too contaminated to be recycled are suitable for the production of solid recovered fuel (SRF) which is used in cement kilns as a replacement for fossil fuels. The residual materials, which contain some putrescible matter, are suitable for the manufacture of refuse derived fuel (RDF) in waste to energy plants.

The black bin and brown bin waste reception and processing areas will be fitted with an odour control system that extracts air from inside the building and passes it through dust and carbon filters that will reduce the odours to levels that will not cause a nuisance outside the site boundary

3.6.3 Regulation

In addition to planning permission, EPA approval is required to increase the annual waste intake rate and a revised EPA licence will be obtained.

3.7 Services

3.7.1 Water Supply

Water for use in staff welfare facilities will be obtained from mains supply. Rainwater from the building roofs will be collected for use in the staff toilets.

3.7.2 Wastewater

Sanitary wastewater from the staff toilets and minor liquid seeps from the waste handling area inside the building will discharge to the Uisce Eireann foul sewer that runs along Ballymount Road.

3.7.3 Surface Water Drainage

Rainwater run-off from the building roof will be harvested for on-site use, with surplus water discharge to a soakaway. The car parking areas will have permeable paving. Run-off from the yard in the north of the site will discharge to an infiltration trench. Run-off from the yards in the south and centre of the site will be collected, passed through Class 1 Hydrocarbon Interceptor and discharged to an underground storage tank. The water from the tank will discharge to the Uisce Eireann storm sewer via an oil interceptor. The flow rate to the storm sewer will be controlled so that it is the same as run-off from an undeveloped site. The tank will also provide storage capacity for firewater run-off in the event of a fire.

3.7.4 Electricity Supply

There will be a connection to the national grid and a new electrical substation will be provided. The electricity from the roof mounted solar panels will be used directly on site.

3.8 Development Stages

The demolition, construction and building fit out will be constructed in one stage and will take approximately 14 months.

3.9 Construction Stage

The construction stage will involve setting up a contractor's compound; site clearance including demolition of current buildings; soil excavation for building foundations, underground services and new roads; installation of surface water and foul water drainage systems; building construction and fit out and landscaping.

Construction will typically occur between 7am and 7pm Monday to Friday and 8am to 2pm on Saturday, but this may vary subject to the approval of South Dublin County Council. The works will be carried out in accordance with Construction Environmental Management Plan and Resource & Waste Management Plans that specify the control measures required to ensure the works do not cause either environmental pollution, or nuisance to nearby residents and minimises construction wastes.

3.9.1 Resource & Waste Management Plan

A Resource and Waste Management Plan (RWP) has been prepared that describes the measures that will be implemented to minimise the amount of waste generated, ensure that the wastes that do arise are managed appropriately and maximise the recycling/recovery of those materials. A Resource & Waste Manager will be appointed and will be responsible for ensuring the construction wastes are managed appropriately.

3.9.2 Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) has been prepared that describes the prevention and mitigation measures that will be implemented in the construction stage to minimise the risk of adverse environmental impacts, nuisance and impairment of amenity value. A Site Manager will be appointed and will be responsible for ensuring the mitigation measures are properly implemented.

3.10 Other Developments

The EIA considered the existing operations in the vicinity of the site an assessment of proposed developments in the area that have recently received planning permission and whose construction could coincide with the proposed development.

4. ALTERNATIVES

4.1 Site Location

Waste management is considered to be an industrial activity. Based on this, SEHL conducted a search of potentially suitable industrially zoned lands in the Greater Dublin Area. The key site selection criteria were:-

- Appropriate land zoning (industrial/general employment);
- Environmental sensitivity;
- A single landholding large enough to allow the provision of the recycling and recovery capacity of 350,000 tonnes/year;
 - Availability of a 3 MW electrical supply, and
- Proximity and accessibility to sources of the wastes arising and existing recycling and recovery facilities.

The development of large power intensive data centres has essentially ring fenced electricity supply in a significant portion of the industrial zoned land in the Greater Dublin Area and SEHL could not identify a suitable site.

SEHL then assessed its existing owned and operated waste management facilities in the Greater Dublin Area and adjoining counties. All are located in areas that have the appropriate land use zoning and established use for waste management operations and all have the benefit of planning permission for waste activities. The majority have been specifically designed for the waste management activities currently carried out and are regulated by Industrial Emissions Licences issued by the EPA. The sites included:

- Cappagh Road, Dublin 11
- Millennium Business Park, Dublin 11
- Ballymount Road Upper, Dublin 18
- Greenogue Industrial Estate, Rathcoole, County Dublin
- Fassaroe, County Wicklow
- Beauparc, Slane, County Meath

The Cappagh Road site has planning permission to accept 450,000 tonnes of materials annually and SEHL is awaiting a decision from the Bord on an application to increase and annual intake at the Millennium Business Park site to 450,000 tonnes. These annual intake rates are required to meet the

future projected growth in waste arising in the facility catchment areas and there is no spare capacity to accommodate additional wastes.

All of the other sites, with the exception of the one in the Greenogue Industrial Estate, are key elements of SEHL's waste management services in their catchment areas and, given their locations, it is not practical to divert wastes to other SEHL facilities while redevelopment works are carried out. The Greenogue facility is in an area at risk of flooding and this restricts the operational area and prevents the development of the scale of processing building required.

SEHL considers the Ballymount Road Upper site to be the best option for the following reasons:

- Existing ground conditions (soil type/geology/hydrology) and distances from sensitive environmental receptors minimise the risk of unexpected emissions given rise to pollution;
- The site is not being used to its full potential and development should be prioritised on vacant or underutilised brownfield sites instead of on undeveloped greenfield sites that encourage sprawled development, and
 - Ballymount Road Upper runs parallel to the M50, with access to the M50 in both directions. The M50 provides ready access to the sources of waste generation in the Greater Dublin Area; access to Dublin Port for the export of recyclables/ recoverables pending the expansion of national capacity and access to landfills in Meath and Wicklow.

4.2 Alternative Layout

The evaluation of alternative site layouts was determined by a combination of the site's physical characteristics and planning requirements. The constraints were evaluated by the Design Team with inputs from the consultants assessing the potential environmental impacts. Based on the latter the appropriate avoidance, prevention and mitigation measures were incorporated into the design.

The physical constraints were:

- The areas of the site (1.18ha);
- The size of the required processing building to allow all waste handling and storage to be contained inside (minimum 4,500m²);
- Need to retain to the maximum extent possible the existing hedgerows around the boundaries;
- Access off the Ballymount Road Upper;
- Safe internal truck movements;
- Stormwater drainage design requirements to maximise infiltration to ground and minimise the discharge to the storm sewer, and
- The need to minimise impacts on nearest sensitive receptors.

To accommodate access, safe truck movements and provide the maximum buffer between the waste processing areas and the nearest private residence to the east of the site) the processing building was positioned as close to the northern boundary as possible, while accommodating drainage measures. Due to the size of the processing building the proposed location is the only practical solution given the physical constraints.

4.3 Alternative Technologies

The assessment of technologies was based on the European Union Best Available Techniques (BAT) Reference Document for Waste Management, current proven waste management processing equipment and the need to ensure consistent high quality outputs. Therefore alternative technologies were not considered.

4.4 Alternative Services

It was a surface water management design objective to avoid the discharge of rainwater run-off to the Uisce Eireann storm sewer. The initial design included a combination of rain water harvesting, permeable paving, swales and soakaways; however the EPA requirements on firewater storage and the prevention of contamination of ground and groundwater limited the ground infiltration options and meant that discharge to the storm sewer was unavoidable.

While green roofs offer ecological and storm water management benefits in the case of the proposed development, which is energy intensive, it was considered that roof mounted solar panels were a better environmental option.

4.5 Alternative Prevention and Mitigation Measures

The proposed prevention and mitigation measures described in the EIAR are appropriate for the development, represent best practice and therefore alternative measures were not considered.

4.6 Do Nothing

There will be no increase in energy consumption, no reduction in rainwater run-off to the storm sewer, no increase in the groundwater recharge and no additional traffic in the vicinity of the site. There will be no expansion of waste treatment capacity to meet the projected demands in the Greater Dublin region and no contribution to meeting national recovery and recycling targets.

5. CLIMATE

5.1 Introduction

This Chapter examines the impacts of the proposed development on the climate and the vulnerability of the development to the effects of climate change. It describes impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

5.2 Methodology

The assessment was based on Ireland's commitments to tackle climate change by reducing greenhouse gas emissions; information on Ireland's current and predicted greenhouse gas emission from reports prepared by the EPA; the energy efficient design of the buildings and the emissions from the additional traffic associated with the proposed development.

5.3 Proposed Development

Those aspects of the proposed development relevant to climate are:

- Impacts on climate by greenhouse gas emissions from construction activities, process emissions in the operational stage and emissions from the additional traffic.
- The potential effects of climate change on the development in the future.

5.4 Receiving Environment

The EPA is responsible for tracking and reporting on Ireland's progress towards meeting its climate change objectives, which includes achieving its emission reduction targets for 2020 and 2030 as set out under the European Union (EU) Emissions Sharing Regulations (ESR) and the Emissions Trading System (ETS). The ETS applies to large greenhouse gas producers like power stations. Other activities, which include the proposed development, belong to what is called the Non-ETS Sector.

The EPA predicts that Ireland can meet its Non-ETS Sector targets over the period 2021 to 2030 assuming full implementation of the Ireland's Climate Action Plan. However the more ambitious targets set in the EU Climate Law and Ireland's Climate Act will require many as yet unidentified additional measures.

Increased renewable electricity generation, including offshore wind generation, is expected to assist in achieving a 70% renewable energy in electricity generation by 2030. Energy industry emissions are projected to decrease by one third by 2030 compared to the most recent figures.

The binding annual greenhouse gas emission target for Ireland is a reduction of 30% in emissions by 2030 compared to 2005 levels. In 2005 the annual greenhouse gas emissions for the non-ETS sector were 47.30 million tonnes of carbon dioxide and the 2030 target is 33.58 million tonnes.

5.5 Impacts

5.5.1 Construction Stage

The assessment of greenhouse gas generated in the construction stage established that this is predominantly associated with embodied emissions in construction materials i.e. emissions from the manufacture and transport of the materials, with a minor contribution from the on-site construction works. The impacts will not be significant.

5.5.2 Operational Stage

The operational stage will both generate and offset of direct and indirect greenhouse gas emissions. The offsets will result from the recovery of recyclable materials from the incoming waste and their diversion from landfill and incineration. The roof top solar panels will reduce the need for electricity from fossil fuel powered generating stations. The overall impact will not be significant.

5.6 Likely Future Receiving Environment

If the development does not proceed, there will be no additional greenhouse gas emissions and no reduction in emissions associated with increasing waste recycling rates.

5.7 Prevention & Mitigation Measures

5.7.1 Design Stage

The design incorporates a number of measures that will minimise emissions of greenhouse gases:

- Roof mounted solar panels;
- Provision of electric vehicle charging points, and
- Energy efficient building design and lighting.

5.7.2 Construction Stage

As the impact of the greenhouse gas emissions from the construction stage will not be significant site specific mitigation measures are not needed; however the following construction best practices will be implemented:

- Planning routes and schedules for the delivery and removal of materials;
- Efficient use of construction equipment and resources, and
- Minimisation of waste generated from construction activities.

5.7.3 Operational Stage

Operational mitigation measures are not required.

5.8 Monitoring

Monitoring is not required in either the construction, or operational stages.

5.9 Cumulative Effects

The assessment of cumulative effects took into consideration Ireland's legally binding obligations on greenhouse gas emission reduction and the impacts of traffic associated with the proposed development.

5.10 Residual Impacts

5.10.1 Construction Stage

The impacts will be negative, slight, likely, national and long term.

5.10.2 Operational

The impact on climate change will be negative, imperceptible, national, likely and long-term. The impact of climate change on the proposed development will be negative, imperceptible, local, likely and long-term.

6. LAND & GEOLOGY

6.1 Introduction

This Chapter examines the impacts of the proposed development on Land & Soil, which includes land use, soils and the bedrock. It describes the impacts associated with the proposed development and the prevention and mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

6.2 Methodology

The assessment was based on information obtained from the Geological Survey of Ireland, Teagasc and the Central Statistics Office.

6.3 Proposed Development

The development involves building demolition, site clearance and the excavation and removal of soils, and possibly the top of the bedrock to reach the levels required for building foundations and the installation of underground services including storm water and foul water drainage system; the construction of the buildings; the provision of parking and paved yards, and landscaping.

6.4 Receiving Environment

6.4.1 Land Use

The site is in an area extensively developed for commercial and industrial use, although there is a large field to the east of the site that was used for farm animal grazing and for which planning permission has been granted for a mix of commercial uses. The site is 1.18 ha and is covered by buildings and paving, with the exception of hedgerows along sections of the south-western, north-western, eastern, and south eastern boundary and a landscape hedging along the road frontage.

6.4.2 Geology

The site is underlain by made ground on top of natural subsoil comprising glacial tills (boulder clay).ranging from 0.7m to 1.8m in depth. The bedrock is limestone and shale, whose upper 0.5m is likely to be weathered. There is no information on the soil quality.

6.5 Impacts

6.5.1 Land Take

Land take is defined as the change of natural and semi-natural land to urban and other non-natural uses. As the site is already extensively developed and there will be no changes to the existing site boundaries the proposed development will not result in any Land Take.

6.5.2 Geology

The construction stage will involve the excavation into the subsoils and possibly the top 0.5m of the bedrock. Where possible the excavated soils/rock will be retained on site and surplus materials will be sent off site either for reuse in other developments, or for recovery at authorised soil recovery sites. There is the potential for spills/leaks to occur in areas where polluting substances (e.g. oils) are handled and diesel powered plant items are refuelled that could impact the exposed subsoils.

In the operational stage rainwater run-off from the building roofs that is not harvested, rainfall on the permeable paving and run-off from the operational yards will infiltrate to ground via a soakaway and infiltration trench. There is the potential for the infiltrating water to be contaminated by minor oil leaks from vehicles to and for leaks from the underground foul sewer. In the event of a fire there is the potential for firewater to infiltrate to ground through damaged paving and surface water sewers.

6.6 Likely Future Receiving Environment

If the proposed development does not proceed, the site will remain in its current condition with no impacts on land and geology.

6.7 Prevention & Mitigation Measures

6.7.1 Design Stage

The operational yards will be constructed of impermeable concrete. The oil interceptor on the surface water drainage system serving the yards and the permeable paving used in car parking areas are designed to filter out oil from leaks from vehicles.

The above ground diesel storage tank is located inside an impermeable containment bund designed to contain 110% of the contents of the largest tank.

6.7.2 Construction Stage

A Construction Environmental Management Plan (CEMP) describing the proposed construction mitigation measures for all sensitive environmental receptors and human beings has been prepared. For Land & Geology these measures include:

- Restricting the storage and handling of oils and chemicals to dedicated areas.
- The provision of appropriate storage containers and bunds to retain accidental spills.
- Provision of appropriate equipment and staff training to ensure any spills are quickly cleaned up.
- Scheduling the soil stripping to times that minimise the risk of erosion, and
- Operating machinery and materials storage in ways to minimise the risk of soil compaction.

6.7.3 Operational Stage.

The above ground storage tank and bund and the underground sewers will be subject to regular inspection to ensure they remain watertight. The paved areas will be regularly inspected and repaired as required to maintain the structural integrity.

6.8 Monitoring

6.8.1 Construction Stage

Soil sampling and analysis will be carried out to establish the baseline soil quality conditions. During construction the works will be regularly inspected to ensure that materials handling and storage practices are in accordance with the CEMP.

6.8.2 Operational Stage

As referred to above, the condition of the underground sewers and paved area will be regularly inspected.

6.9 Cumulative Impacts

The future development on the field adjoining the eastern site boundary will result in the 'land take' of approximately 7 ha; however as the proposed development does not involve any 'land take' it will have no cumulative effects on developments within the Ballymount Industrial Estate.

6.10 Residual Impacts

6.10.1 Construction Stage

The proposed development does not involve land take but does include ground disturbance including the excavation of subsoils, and possibly the bedrock, in the construction stage. The development will have a neutral, imperceptible, local, unlikely and permanent impact on land take and a negative, imperceptible, local, likely and permanent impact on geology.

7. WATER

7.1 Introduction

This Chapter examines the impacts of the proposed development on Water, which includes rivers and streams and groundwater. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

7.2 Methodology

The assessment was based on information obtained from the Geological Survey of Ireland, Teagasc, the EPA and the River Basin Management Plan 2013-2018.

7.3 Proposed Development

The development involves building demolition, site clearance and the excavation and removal of soils, and possibly the top of the bedrock to reach the levels required for building foundations and the installation of underground services including storm water and foul water drainage system; the construction of the buildings; the provision of parking and paved yards, and landscaping.

7.4 Receiving Environment

The site is in the catchment of the River Liffey, whose main channel is approximately 3.8 km to the north of the site. There are no streams or water courses either on the site, or in the surrounding lands. The closest water course is the Ballymount Stream, which is a tributary of the Liffey and is approximately 410 m northwest of the site. The site is neither in, nor adjacent to an area that is at risk of flooding and there are no records of any flood event either at, or in the vicinity of the site.

The subsoils across most of the site comprise made ground. The soils are not water bearing and the underlying dark limestone and shale (Calp) bedrock is classed as a locally important aquifer (resource). Due to the type and thickness of the soils the aquifer vulnerability to contamination from incidents occurring at the ground surface site is 'Extreme'. However the extensive paving minimises the risk of groundwater contamination. It also reduces groundwater recharge (infiltration to the water table) rates.

7.5 Impacts

7.5.1 Construction Stage

The construction stage involves the excavation of the subsoils and possibly the top 0.5m of the bedrock for the building foundations and underground services and based on the available information

dewatering will not be required. There is the potential for spills/leaks to occur in areas where polluting substances (e.g. oils) are stored and handled that infiltrate to groundwater.

7.5.2 Operational Stage

In the operational stage rainwater run-off from the building roofs that is not harvested, rainfall on the permeable paving and run-off from the operational yards will infiltrate to ground via a soakaway and infiltration trench, which will increase the groundwater recharge inside the site boundary. There is the potential for minor oil leaks from vehicles to occur at the ground surface and for leaks from the underground foul sewer. In the event of a fire there is the potential for firewater to infiltrate to ground through damaged paving and surface water sewers and move downwards to the water table.

7.6 Likely Future Receiving Environment

If the proposed development does not proceed the current land use will continue and there will be no change to the potential impacts on surface water and groundwater. There will be no reduction in the flow rates to the Uisce Eireann storm sewer and no increase in the recharge rate to the groundwater.

7.7 Prevention & Mitigation Measures

7.7.1 Design Stage

Sustainable drainage measures include permeable pavement, a soakaway and infiltration trench to increase groundwater recharge and flow attenuation to restrict the flows to the Uisce Eireann storm sewer. To mitigate the potential contamination risk to groundwater an oil interceptor will be provided on the drainage system taking rainwater run-off from the operational yards. The permeable pavement design includes measures to remove oil from the infiltrating rainwater.

7.7.2 Construction Stage:

The mitigation measures for surface water and groundwater in the CEMP include:

- Restricting the storage and handling of oils and chemicals to appropriately constructed dedicated areas;
- The provision of appropriate storage containers and bunds to retain accidental spills;
- Provision appropriate equipment and staff training to ensure any spills are cleaned up quickly, and
- Prohibiting the wash out of concrete delivery vehicles on-site.

7.7.3 Operational Stage

The above ground diesel storage tank and bund and the underground sewers will be subject to regular inspection to ensure they remain watertight. The paved areas will be regularly inspected and repaired as required to maintain the structural integrity.

7.8 Monitoring

7.8.1 Construction Stage

The works will be regularly inspected to ensure that materials handling and storage practices are in accordance with the CEMP.

7.8.2 Operational Stage

In the operational stage the above ground storage tank and bund and the underground sewers will be subject to regular inspection to ensure they remain watertight. The paved areas will be regularly inspected and repaired as required to maintain the structural integrity.

7.9 Cumulative Effects

As the area of the site will remain the same there will be no significant change to the volume of rainwater run-off generated. The new storm water drainage system will reduce the volume discharging to the Uisce Eireann storm sewer and will have a, positive, slight, local, likely and long term cumulative effect in combination with the other permitted developments whose surface water drainage systems connect to the Uisce Eireann storm sewer.

The storm water infiltration to ground will increase the groundwater recharge rate and will have a positive, imperceptible, local, likely and long term cumulative effect in combination with other permitted developments and a neutral, imperceptible, local, likely and long term cumulative effect on groundwater quality.

7.10 Residual Impacts

7.10.1 Construction Stage

There will be a negative, imperceptible, local, likely and permanent impact on aquifer vulnerability and a negative, imperceptible, local, likely and short term impact on groundwater quality.

7.10.2 Operational Stage

The development will have a positive, slight, local, likely and long term impact on flow rates to the Uisce Eireann storm sewer and a neutral, imperceptible, local; likely and long term impact on storm surface water quality. It will have a positive, imperceptible, local, likely and long term impact on the groundwater resources and positive, imperceptible, local, likely and long term impact on groundwater quality and a negative, imperceptible, local and long term impact on groundwater quality

8. BIODIVERSITY

8.1 Introduction

This Chapter examines the impacts of the proposed development on Biodiversity which includes habitats, plants (flora) and animals (fauna). It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

8.2 Methodology

The assessment was based on a desk top study and ecological field surveys. The desktop study included reviews of databases on protected species held by National Parks and Wildlife Service (NPWS); EPA; National Biodiversity Data Centre (NBDC); Bat Conservation Ireland, and Birdwatch Ireland.

The ecological surveys were completed on 9th November 2023 and included:

- Habitat survey;
- Botanical survey including invasive species;
 - General bird survey, and
- General mammal survey

The surveys were carried out in accordance with best practice and in the expert opinion of the authors, are considered sufficient to assess potential significant ecological effects associated with the project. Habitats were mapped according to the classification scheme outlined in the Heritage Council publication A Guide to Habitats in Ireland and following the guidelines contained in Best Practice Guidance for Habitat Survey and Mapping.

The assessment also took into consideration the findings of the Soil & Geology, Water, Air and the Population and Human Health Chapters.

8.3 Proposed Development

The development involves building demolition, site clearance, including the removal of 14 trees at the boundaries, the excavation and removal of soils, and possibly the top of the bedrock to reach the levels required for building foundations and the installation of underground services including storm water and foul water drainage systems; the construction of the buildings; the provision of parking and paved yards and landscaping.

8.4 Receiving Environment

The site is in the southern end of Ballymount Industrial Estate, to the east of the M50 and south of the Naas Road R110. It covers 1.18ha and slopes gradually from southeast to northwest. It is occupied by a waste transfer building, a two storey office block, two weighbridges, portakabins, an above ground fuel storage tank, truck wash and paved operational yards and parking areas.

The land use surrounding the site is predominantly commercial and industrial. The lands to the east and north east are currently used for animal grazing; however planning permission has been granted for the development of this site comprising 5 warehouse/logistics units 3 office buildings and a café/restaurant.

8.4.1 Designated Conservation Sites

Designated conservation sites in what is termed the zone of influence of the proposed development were identified. This included Natural Heritage Areas, proposed Natural Heritage Areas, and Natura 2000 Sites (Special Areas of Conservation and Special Protection Areas). The development site is not in or adjacent to any designated conservation areas.

A tributary of the River Liffey is approximately 410m north of the proposed development site. This stream meets the waters of Dublin Bay approximately 14.7km downstream of the proposed development site at Ballymount. The South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Dublin Bay SAC and North Bull Island SPA are located within Dublin Bay.

8.4.2 Habitats

There are no watercourses within or near the proposed development site. The proposed development site is within an existing industrial facility and is dominated by man-made habitats which are not of ecological value.

The site is dominated by artificial surfaces including roads, yards, the existing office building, areas of gravel and the existing waste management facility. There is a mixture of patchy treeline and some non-native hedging along some of the external boundaries. The trees are planted, and along the Ballymount Road there is a mixture of dense Cherry Laurel and Norway Maple. No rare plant species were recorded within the development site. At the back of the processing building is an areas of unused ground which has been colonised by a mixture of taller, coarse grasses and scrub.

8.4.3 Flora

No rare plant species were recorded within the works area during the site survey. Although the survey was conducted outside the main growing season the presence of rare or uncommon species is unlikely.

8.4.4 Invasive Species

Invasive non-native species can out compete native vegetation, affecting plant community structure and habitat for wildlife; cause damage to roads, pathways and walls and have an adverse effect on landscape quality.

The Birds and Natural Habitats Regulations 2011 prohibits the introduction and dispersal of the invasive species listed in the Third Schedule. No Third Schedule invasive species or species at risk of having damaging effects were identified.

The medium impact invasive species *Buddleia* is present. This species is listed on the Invasive Species Ireland “Amber List: Recorded Species” but as it is not included in the Third Schedule its presence does not have the potential to lead to an offence under the Birds and Natural Habitats Regulations 2011.

8.4.5 *Fauna*

8.4.5.1 Bats

The artificial habitats that dominate the site provide low value foraging habitat for bats and the proposed development will not impact on the tree lines with the potential to be of value as significant commuting routes. It is also noted that background levels of light deter some bat species. The trees within the site boundary lack potential roost features, such as cracks and crevices or dense mature ivy. They are considered of negligible value for bats.

The office building is of modern construction with no features that could provide bat roosting habitat. The windows and doors are of modern with no entry entrance or exit points. Likewise the remaining buildings such as the portakabins and the processing building are modern, lack suitable structural elements for roosting bats and are considered of low to negligible value for bats.

8.4.5.2 Otter

Although rare in parts of Europe, otters are widely distributed in the Irish countryside in both marine and freshwater habitats. They are solitary and nocturnal and as such are rarely seen. There are no aquatic features within the site or in close proximity and habitat of value for otter was recorded.

8.4.5.3 Other Mammals

There is very little vegetation within the site boundary, with the exception of some treelines dominated by non-native species and the small area of scrub. Levels of disturbance are high, with significant traffic movement and relatively high levels of background noise. Therefore protected mammals such as badger, stoat, hedgehog are not likely to occur.

8.4.5.4 Amphibians & Reptiles

There are no aquatic or semi-aquatic habitats within the site boundary or in close proximity and therefore no habitat for Common Frog or Smooth Newt

8.4.5.5 Reptiles

Two species of reptile have been recorded within O14 (Red-eared Terrapin and Yellow-Bellied Slider)). Both are non-native turtle species which are not present within the proposed development site. No valuable habitats for reptiles were recorded within the site.

8.4.6 *Birds*

In general the site is of low value for terrestrial birds. Boundary habitats are dominated by introduced species which are of low value for birds and scrub is limited in extent. Levels of disturbance is high with ongoing traffic movement and pedestrian movement. While a small number of species, which are relatively common in the urban environment were recorded (Blackbird, Rook, Starling, Robin, Blue Tit, Magpie, Jackdaw), in general the site is considered of negligible value for most bird species

The waste activities attract crows and gulls species checking for foraging opportunities. During the survey most of the gulls were roosting on the roof of an existing industrial building adjoining and to the west of the site.

Overall, the proposed development site is of low local value for bird species that are relatively common in urban/suburban environments, with very little nesting or foraging habitat available;

8.4.7 Other Species

The site is dominated by common low value habitats and although some common invertebrates are likely to occur the present of rare or notable species is highly improbable.

8.5 Impacts

Those aspects of the development relevant to biodiversity are:

- Construction Stage loss of habitat and plant species, including approximately 14 mature trees
- Construction Stage disturbance of species due to noise and light emissions and human activity;
- Construction Stage landscaping measures:
- Operational Stage disturbance of species due to light, noise and human activity.

8.5.1 Designated Sites

Potential impacts on the Natura 2000 sites are specifically addressed in the Appropriate Assessment (AA) screening submitted separately with the planning application. The AA screening assessment concluded that the proposed development, either alone or in-combination with other plans and/or projects, does not have the potential to significantly affect any European Site, in light of their conservation objectives

8.6 Likely Future Receiving Environment

In the absence of development, there would be no significant changes in the distribution of habitats. Some increase in scrub may occur over time.

8.7 Prevention & Mitigation Measures

8.7.1 Design Stage

It was a design objective to retain the maximum extent of the existing boundary hedgerows. A detailed landscape plan has been prepared and it is proposed to extend the boundary hedge rows and augment the existing hedgerows by planting native shrub species. The operational lighting scheme will be designed to minimise the impact of external lighting upon bat populations by retaining dark areas around the boundaries.

8.7.2 Construction Stage

The mitigation measures that will be implemented to mitigate the effects on soils, water and human beings are also effective in relation to protecting biodiversity. Additional measures include:

- Site lighting will be at the lowest level needed for safety and security purposes and wherever possible will be restricted to the working area and set up to avoid overspill and shadows on sensitive habitats outside the construction area;
- Where possible trees will not be removed between the bird breeding season of 1st March and 31st August;
- Trees will be protected in accordance with BS: 5837:2012 Trees in relation to design, demolition and construction recommendations and any further agreed procedures. The reinstatement of trees and vegetation will be undertaken by a suitably qualified landscape contractor.
- As a biodiversity enhancement measure four bat boxes will be put up within the site boundary. The location will be specified by an ecologist taking into account landscape plans, vehicle movements and lighting.
- As noted above vegetation will be removed outside of the breeding season where possible and in particular, removal during the peak-breeding season (April-June inclusive) will be avoided. This will also minimise the potential disturbance of breeding birds outside of the study area boundary.
- The buddleia will be treated.
- Site lighting will typically be provided by tower mounted temporary portable construction floodlights. The floodlights will be cowled and angled downwards to minimise spillage to surrounding properties

8.8 Monitoring

8.8.1 Construction Stage

Monitoring is not required.

8.8.2 Operational Stage

Monitoring will not be required.

8.8 Cumulative Effects

As the proposed development is not predicted to significantly increase long term noise and disturbance levels or impact on water quality, no significant cumulative impacts have been identified. The habitats within the proposed development site, notwithstanding their location within an urban setting, are of low value and no significant cumulative effect from the loss of habitat will occur.

8.9 Residual Impacts

The retention of the majority of treelines at the site as well as the proposed landscaping plan will provide foraging and commuting habitat for birds, bats and other animals. There will be a loss of low value habitats i.e. buildings and artificial surfaces, recolonising bare ground, non-native flower beds and some scrub. This will have a negative, imperceptible, local, likely and long-term local impact.

Following the implementation of mitigation measures the residual impacts on mammals and birds will be negative, not-significant, local, likely and long-term

9. AIR

9.1 Introduction

This Chapter examines the impacts of the proposed development on air quality. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

9.2 Methodology

The assessment was based on information on air quality obtained from EPA databases, meteorological data from the closest Met Eireann station at Dublin Airport and the traffic and transport assessment completed by Systra. The identification and evaluation of impacts followed guidance documents on the impacts of construction projects issued by the National Roads Authority and the Institute of Air Quality Management and the Quarries and Ancillary Activities Guidelines for Planning Authorities issued by the Department of Environment Local Government and Heritage. The traffic impacts were assessed in accordance with the Highways England Design Manual for Roads and Bridges.

9.3 Proposed Development

The development involves building demolition, site clearance, including the removal of 14 trees at the boundaries, the excavation and removal of soils, and possibly the top of the bedrock to reach the levels required for building foundations and the installation of underground services including storm water and foul water drainage system; the construction of the buildings; the provision of parking and paved yards, and landscaping.

When open the Materials Recovery Facility will operate 24 hours a day, 7 days a week. The annual through put will be 350,000 tonnes and materials will be delivered and removed in heavy goods vehicles. The materials accepted and processed will include process odorous wastes.

9.4 Receiving Environment

The land use surrounding the site is predominantly commercial and industrial. The closest large residential areas are approximately 440 m to the west and 800m to the south-east, with the closest individual private residence approximately 40m from the eastern boundary. The lands to the east and north east are currently used for animal grazing; however planning permission has been granted for the development of this site comprising 5 warehouse/logistics units 3 office buildings and a café/restaurant. The ambient air quality, based on the results of continuous monitoring conducted by the EPA in Tallaght, Ballyfermot and Walkinstown, is good.

9.5 Impacts

9.5.1 Construction

In the construction stage the impacts are associated with dust emissions from building demolition, soil excavation and stockpiling, building construction; landscape works, wind-blown dusts from access roads and from mud tracked out from the site on vehicle wheels, and exhaust gases from the materials delivery and staff vehicles and mobile plant.

The potential for dust emissions depends on ambient conditions, including rainfall, wind speed, wind direction and on the distance to potentially sensitive locations. Most the dust generated is deposited close to the source and any impacts are typically within a hundred metres or so of the construction area. Depending on the size of the particles dust can result in soiling of houses, gardens and cars, while the smaller particles that are breathed in can affect health.

9.5.2 Operational

In the operational stage the impacts are associated with the emissions to air from the waste handling and exhaust gases from the traffic to and from the site. The emissions will be regulated by the Industrial Emissions Licence issued by the EPA. The Licence will specify emission limits, derived from the detailed air quality impact assessment completed as part of this EIA, that will ensure that the emissions will not adversely affect air quality.

9.6 Likely Future Receiving Environment

If the proposed development does not proceed there will be no new emissions to air and no change to the potential for impacts on air quality. Air quality levels at the site will change over time in line with general trends for the wider surrounding area.

9.7 Prevention & Mitigation Measures

9.7.1 Design Stage

An odour control system will be installed in the section of the materials recovery facility where the odorous wastes (black bin) will be processed and stored (brown bin). The system will involve the abstraction of the air and its treatment in a dust filter to remove dusts and carbon filter to reduce odour levels before it is emitted to the air via a stack. The system will be designed to meet the most stringent odour limit value specified by the EPA. The design, installation and operation of the system will require the EPA's prior approval. Fast opening and closing doors will be fitted on the entrances to the area where odorous wastes are handled.

9.7.2 Construction Stage

The following will be implemented to ensure dusts do not result in any significant adverse impacts on air quality:

- Water spraying of exposed earthworks and site haul road during dry weather using mobile units.
- Provision of a wheel cleaner at the site entrance to remove dirt from vehicles prior to exiting the site.

- Regular inspection of the approach roads and cleaning as needed using a road sweeper.
- Control of vehicle speeds within the site, and
- Material drop heights from plant to plant or from plant to stockpile will be minimised.

Emissions from construction traffic and the use of fossil fuels to power onsite equipment will be minimised through:

- Planning delivery routes and schedules for the delivery and removal of materials.
- Efficient use of construction equipment and resources.

9.7.3 Operational Stage

Wastes will only be accepted and handled inside the building. The doors of the area where the odorous wastes are handled will only be opened to allow vehicles to enter and leave. In dry weather paved yards will be damped down to prevent dust emissions from moving vehicles. The diesel powered trucks that transport the wastes will be fitted with nitrous oxides reduction systems and engine idling will not be permitted. The EPA licence will set emission limit values for the emissions to air from the odour control unit derived from the odour dispersion modelling assessment.

9.8 Monitoring

9.8.1 Construction Stage

If required by SDCC dust deposition monitoring will be carried out at agreed locations and frequencies and the results will be submitted to the Council.

9.8.2 Operational Stage

The emissions from the odour control unit will be monitored at the frequencies set in the EPA licence to demonstrate compliance with the emission limits. The odour control unit will be inspected regularly to ensure it is operating effectively. Dust deposition monitoring will be carried out at locations and frequencies specified by the EPA.

9.9 Cumulative Effects

The baseline air quality assessment considered the existing environment, while the air quality impact assessment considered the proposed development in combination with air emissions from other EPA licensed activities in the vicinity of the site.

9.10 Residual Impacts

9.10.1 Construction Stage

The impacts will be negative, imperceptible, local, likely and temporary.

9.10.2 Operational Stage

The impacts will be negative, imperceptible, local, likely and long term.

10. POPULATION & HUMAN HEALTH

10.1 Introduction

This Chapter examines the impacts of the proposed development on population and human health. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

10.2 Methodology

The assessment was based on the planning zoning status, the land use in the vicinity of the site, settlement patterns; the findings of the assessment of impacts on human health associated noise emissions and emissions to air (Chapter 9).

10.3 Proposed Development

The development involves building demolition, site clearance, including the removal of 14 trees at the boundaries, the excavation and removal of soils, and possibly the top of the bedrock to reach the levels required for building foundations and the installation of underground services including storm water and foul water drainage system; the construction of the buildings; the provision of parking and paved yards, and landscaping.

When open the Materials Recovery Facility will operate 24 hours a day, 7 days a week. The annual through put will be 350,000 tonnes and materials will be delivered and removed in heavy goods vehicles. The materials accepted and processed will include process odorous wastes.

10.4 Receiving Environment

10.4.1 Population

The surrounding land use is a mix of industrial and residential use. The closest large residential areas are approximately 440 m to the west and 800m to the south-east, with the closest individual private residence approximately 40m from the eastern boundary. There are no recreational areas, schools or health care facilities within 500m of the site.

10.4.2 Human Health

The environmental factors relevant to population and human health include impacts that either directly impinge on standards designed to protect health for example air quality, or are indirectly associated with nuisance that can induce stress, for example noise, traffic and odours.

10.4.2.1 Accidents

The Seveso II Directive 96/82/EC, which is implemented by the “European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, is concerned with the

prevention of major accidents that involve dangerous substances. The proposed development will not be subject to the Regulations and the nearest designated facility is the Lower Tier Irish Distillers, approximately 800m to the north.

10.4.2.2 Natural Disasters

The proposed development site is not in an area at risk of either land instability, or flooding.

10.4.2.3 Air Quality

The air quality at and in the vicinity of the proposed development site is good.

10.4.2.4 Noise

The dominant noise sources in the vicinity of the development site is traffic.

10.5 Impacts

10.5.1 Construction Stage

In the construction stage noise and air emissions and traffic movement have the potential to result in localised, if temporary, nuisance.

10.5.2 Operational Stage

10.5.2.1 Nuisance

Traffic movements can, depending on the size, location and capacity of the local road network, be a cause of congestion that affects local residents. Some of the wastes that will be accepted in the materials recovery facility are attractive to vermin, insects and birds. While these do not present a direct human health risk, they can be a significant nuisance and cause of discomfort to people living in the locality. Noise from operations can also be a source of nuisance.

10.5.2.2 Accidents

A major incident such as a fire presents a risk to site staff and there is the potential, depending on the weather conditions, for smoke to affect the occupants of the residential, industrial and commercial properties in the vicinity of the site.

10.6 Likely Future Receiving Environment

If the proposed development does not proceed the current land use will continue and there will be no change to the potential impacts on Population and Human Health.

10.7 Prevention & Mitigation Measures

10.7.1 Design Stage

10.7.1.1 Fire Safety

Inside the building the internal separation distances between materials storage areas/bays will comply with the EPA guidance on fire safety. A certified automatic fire detection and alarm system will be installed that covers all internal areas. Mains water supplied fire hydrants will be installed. To prevent/reduce risk of arson the security fence will be maintained around the site boundary

10.7.1.2 Noise

An acoustic noise barrier will be installed along the south-eastern boundary. It will be 4m high and, entirely solid without panel gaps and constructed using insulated cladding on a steel framework.

10.7.2 Construction Stage.

10.7.2.1 Air Quality

The measures to mitigate impacts on air quality are described in Section 9.7.2

10.7.2.2 Noise

Although noise emissions will be short term and will not exceed the construction noise criteria, the following mitigation measures will be implemented.

- Works will generally be confined to 7am to 7pm Monday to Friday and 8am to 2pm on Saturday.
- Where plant has to operate between 7am and 8am at locations within 100m of sensitive receptors, standard 'beeper' reversing alarms will be replaced with flat spectrum alarms.
- Construction machinery will be maintained in a satisfactory condition, with exhaust silencers fitted and in good working order.
- Queuing of trucks near off-site receptors and engine idling will be prohibited.

The Construction Site Manager will act as a liaison officer with the local community.

10.7.3 Operational Stage

10.7.3.1 Fire

Members of the public will not have access to the facility and only site staff will be permitted inside the building. Site visitors will be informed of the safety and fire prevention procedures that must be followed and there will be a policy of only smoking in designated areas.

Safe systems of work will be provided and outside contractors will be obliged to undergo safety inductions before being allowed access operational areas. The inductions will address fire procedures, behaviour on site, housekeeping and specific high risk jobs i.e. hot works procedure & permits.

Fire extinguishers will be positioned at selected locations and staff will be trained to extinguish small fires with appropriate hand held fire. If staff members cannot tackle a fire safely and effectively, the evacuation of all personnel will be the primary priority.

10.8 Monitoring

10.8.1 Construction Stage

If required by SDCC noise and dust deposition monitoring will be carried out at agreed locations and frequencies and the results will be submitted to the Council. The noise limits will be as conditioned in the planning permission.

10.8.2 Operational Stage

Noise emissions will be monitored at the frequencies set in the planning permission and the EPA licence to demonstrate compliance with the emission limits. The results will be submitted to the Council and the EPA and will be publically accessible.

10.8.3 Operational Stage: Fire Safety

The fire extinguishers and the fire detection system will be subject to annual checks by fire safety contractors.

10.9 Cumulative Impacts

In the construction stage the implementation of the CEMP will ensure that impacts in combination with the construction phase of the development on the field to the east will be maintained at levels that are negative, imperceptible, local, likely and temporary.

In the operational stage, considering that air quality in the vicinity of the site is good the impact of the proposed develop on air quality in combination with other permitted activities will be negative, imperceptible, local, likely and long-term.

10.10 Residual Impacts

10.10.1 Construction Stage

The construction stage will have a negative, not significant, local, likely and temporary impact associated with noise and dust emissions.

10.10.2 Operational Stage

The operational stage will have a negative, not significant/slight, local, likely and long term impact associated with traffic noise.

11. LANDSCAPE & VISUAL IMPACT

11.1 Introduction

This Chapter assesses the landscape and visual impacts of the proposed development on the surrounding landscape. It examines and evaluates the impacts in terms of landscape character and visual alterations and identifies the proposed mitigation and monitoring measures to achieve the long-term integration of the proposed development in the surrounding landscape. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

11.2 Methodology

The assessment followed the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute & IEMA., UK 2013). It took into consideration the requirements of the South Dublin County Development Plan, the Landscape Plan prepared by Ryan Hayes Landscape Architects and the building elevation drawings prepared by ORS Consulting Engineers. The site and the surrounding area was visited to establish views of the development site and the landscape character.

11.3 Receiving Environment

11.3.1 Landscape Character

The South Dublin County Development Plan's Landscape Character Assessment (LCA) classifies South Dublin's landscapes based on the types and values, and sensitivities. The LCA defines 6 Landscape Character Areas representing areas of distinctive character that makes one landscape different from another, such as uplands or the coast.

The Landscape Character Areas are:

- Liffey Valley
- Newcastle Lowlands
- Athgoe and Saggart Hills
- Dodder and Glenasmole
- Urban

The LCA also identifies several Landscape Character Types (LCT) within the County:

- River Valley
- Canal
- Agricultural Lowlands
- Low Foothills
- Foothills
- Mountains
- Green Space
- Transport Corridor
- Urban
- Historic Urban

- Urban Fringe

There may be several LCTs within each Landscape Character Area. The capacity of each LCT to absorb new development will largely depend on the sensitivity of the landscape. The sensitivity is classified as Low, Moderate or High.

The proposed development site is in the Urban/Historic Urban Area, which is characterised by a mix of residential and industrial areas, with few no protected views or prospects. The Urban Landscape Character Area is not categorised for sensitivity. The LCT is Historic Urban/Urban Fringe.

11.3.2 Visibility

Given the surrounding land use, topography and vegetation the views of the site are limited to the Ballymount Road Upper and the field to the north-east of the site boundary.

11.4 Impacts

11.4.1 Trees and Hedgerows

The development will result in the loss of fourteen (14) trees around the site boundary, the majority (8) of which will be at the south eastern end of the site, where the new entrance will be located.

11.4.2 Landscape Character

The development will not result in a change to the landscape character. The site is in an area zoned for Enterprise and Employment (EE) and the proposed development is consistent with land zoning.

11.4.3 Views

General Impacts

In the construction stage works, including site clearance, erection of hoarding, use of lighting and cranes and stockpiling of soils, have the potential to cause temporary visual impacts; however these will be short term.

Impacts on Listed Views

There are no '*Listed Views or Prospects*' within or in close proximity to the site.

Impacts on Visibility into the Site

The southern and eastern facades of the building and the central yard will be visible from the entrance off Ballymount Road Upper. The upper section of the western façade will also be visible all year round from the from a view point on Ballymount Road north west of the site.

11.5 Likely Future Receiving Environment

If development does not proceed the land use at the subject site will not change, with no alteration to the landscape character.

11.6 Prevention & Mitigation

11.6.1 Design Stage

The height of the stack on the odour control unit was determined by the air dispersion modelling. The colours of the external building materials were selected to minimise visual intrusion. It was a design objective to retain to the maximum extent possible the existing hedgerows/ treelines around the site boundary and to supplement them with planting of native trees.

11.6.2 Construction Stage

To facilitate the construction and operation of the facility fourteen (14) trees will be removed.

11.6.3 Operational Stage

Prevention and mitigation measures are not required.

11.7 Monitoring

11.7.1 Construction Stage

During site excavations vegetation will be inspected to ensure it is adequately protected and that subsoils are being correctly stripped and stored.

11.8 Cumulative Effects

The proposed development will have a not significant, negative, local and long term cumulative impact on the landscape.

11.9 Residual Impacts

The development will not alter the existing landscape character and will have no impact on the, amenities or cultural heritage. The impact will be negative, not significant, local, likely and long term. In the context of the surrounding landscape, which is dominated by commercial and industrial type buildings, the visual impact will be negative, not significant, local, likely and long term.

12. CULTURAL HERITAGE

12.1 Introduction

This Chapter examines the impacts of the proposed development on cultural heritage. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

12.2 Methodology

The development site is an operational waste management facility and previous construction stages involved extensive ground disturbance. Therefore archaeological and cultural heritage field surveys were not required and the assessment was based on a desk study of background information sources, and previous archaeological investigations undertaken in the vicinity of the site. The Study Area was within a 1km radius of the proposed development site

12.3 Receiving Environment

There are no recorded cultural heritage features inside the development site boundary and it is not adjacent to any Zone of Archaeological Potential listed in the South Dublin Development Plan. Within the Study Area, to the south-west is the 17th Century Ballymount Manor House. The area surrounding the Manor House includes a Gatehouse, a Stepped Barrow, a Designed Landscape-Belvedere (18th Century Folly), an ancient roadway connecting Ballymount to Belgard Road, a Ceremonial Enclosure and a Limekiln.

In Kilnamanagh to the south-east is a cluster of archaeological features including a Castle Tower House, Church, Graveyard, Holy Well, Ecclesiastical Enclosure, Bawn and Earthworks. To the north-east of the site is a Flat Cemetery and two cists with two pit burials and two other possible pit burials were discovered. Further north there is a Holy Well and Linkardstown Burial Site.

In 2022, an archaeological assessment was completed on the large field adjoining the north-eastern site boundary. The assessment, which included a site survey and the inspection of eleven (11) test pits, did not identify any archaeological features, finds or deposits.

12.4 Impacts

The proposed development will have no impact on known architectural and cultural heritage. .

12.5 Baseline Scenario

If the development does not proceed the site will remain in its current condition, with no changes to the potential impacts on unknown archaeological and cultural heritage features.

12.6 Prevention & Mitigation Measures

12.6.1 Design Stage

Design stage measures are not required.

12.6.2 Construction Stage

There is no evidence of any cultural features inside the proposed development site and given the site history any unknown features that may have been present in the subsoils have been destroyed, therefore there is no need for prevention and mitigation measures.

12.6.3 Operational Stage

Operational stage mitigation measures are not required.

12.7 Monitoring

12.7.1 Construction Stage

Construction stage monitoring is not required.

12.7.2 Operational Stage

Monitoring is not required.

12.8 Cumulative Effects

The proposed development will have no cumulative effects on cultural heritage.

12.9 Residual Impact

The only potential for impacts is on unknown archaeological features in the construction stage and based on the development history any such features that may have been present were removed/destroyed in previous construction stages

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13. MATERIAL ASSETS: BUILT SERVICES & INFRASTRUCTURE

13.1 Introduction

This Chapter examines the impacts of the proposed development on built services. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses the likely future environment if the development does not proceed, discusses the cumulative effects and concludes on the residual impacts.

13.2 Methodology

The assessment was based on and information derived from the current County Development Plan, Eastern Midlands Region Waste Management Plan, Uisce Eireann database and the ORS Engineering Report.

13.3 Receiving Environment

13.3.1 Services

The site is connected to the mains electrical and telecoms supply and the Uisce Eireann storm water and foul sewer systems.

13.4 Impacts

13.4.1 Construction Stage

The construction works will result in the consumption of natural resources and construction and demolition waste will be generated.

13.4.2 Operational Stage

13.4.2.1 Site Services

In the operational stage water for potable use will be obtained from the mains supply. Rainwater will be harvested for use as 'grey water' in the staff welfare facilities and for dust suppression in the yards, with the latter supplemented by the mains supply.

In addition to rainwater harvesting and storm water will infiltrate to ground, with the surplus water discharged to the Uisce Eireann storm water sewer at greenfield run-off rates. This will reduce the hydraulic loading on the Uisce Eireann's storm water network.

Sanitary wastewater and small amounts of liquid seeps from the waste processing will discharge to the Uisce Eireann foul sewer. The completion of the relocation of the SEHL sister company administrative support staff (50) has reduced the hydraulic and organic loading on the Uisce Eireann foul sewer.

The facility will be connected to the main electricity network and a new electricity substation will be provided. The electricity from the roof top solar panels will be directly used on site. A significant element of the increased electricity consumption is linked to relocation of the waste activities from the SDCC Baling Station & Civic Amenity Area, which will be decommissioned.

The wastes generated will include office and canteen waste, unsuitable materials removed from the incoming materials and waste oils and batteries from plant maintenance.

13.4.2.2 Waste & Resource Management

When operational the facility make a significant contribution of the recycling and recovery capacity in the Greater Dublin Area.

13.5 Likely Future Receiving Environment

If the proposed development does not proceed there will be no change increase in electricity demand and diesel consumption linked to the additional processing and increased waste intake and no generation of electricity from renewable sources. There will be no reduction to the loading on the Uisce Eireann storm sewer, no expansion of the waste treatment capacity in the Greater Dublin area and no contribution to the achieving circular economy initiatives.

13.6 Prevention & Mitigation Measures

13.6.1 Design Stage

13.6.1.1 Energy Efficiency

The energy conservation measures include:

- Roof mounted solar panels to supplement the electricity supply;
- Provision of energy efficient artificial lighting systems, and
- Provision of electric vehicle charging points.

13.6.1.2 Surface Water Drainage

The capacity of the proposed storm network was designed for 1-in-100 year rainfall event, to provide storage capacity for firewater run-off and minimise the loading on the Uisce Eireann storm sewer.

13.6.1.3 Natural Resource Consumption

The design mitigation measures implemented to minimise energy usage will also reduce indirect natural resource consumption.

13.6.2 Construction Stage

The connection to the electricity grid will be managed by ESB Networks, which should limit any disruption and ensure that residents/ businesses in the affected areas receive advance notice of the

planned disruptions. Construction and demolition waste will be minimised by implementing the recommendations of the Resource & Waste Management Plan.

13.6.3 Operational Stage

Energy efficiency reviews will be conducted regularly and plant and equipment suppliers will be required to ensure that only the most energy efficient are procured. A preventative maintenance programme will be in place for all equipment to ensure their energy efficiency is optimised. To minimise demand on the mains water supply rainwater run-off from the building roof will be used as 'grey water' in the staff toilets. The roof mounted solar panels will reduce demand on the national grid.

13.7 Monitoring

13.7.1 Construction Stage

Monitoring is not required in the construction stage.

13.7.2 Operational Stage

Energy, fuel and water usage will be monitored.

13.8 Cumulative Effects

As the area of the site will remain the same there will be no change to volume of rainwater run-off generated. However the drainage measures based on the infiltration of run-off to ground will reduce the volume discharging to the Uisce Eireann storm sewer and will have a slight positive, long term and local cumulative impact

In the operational stage the proposed development will contribute to the cumulative natural resource consumption in the Greater Dublin Area. The installation of the roof mounted solar panels on the processing building will reduce reliance on non-renewable energy sources. The development will contribute to a cumulative increase in the waste recycling and recovery capacity in the Greater Dublin Area.

13.9 Residual Impacts

There will be an increased demand on the national electricity grid, but this will be somewhat off-set by the electricity generated in by the solar panels. In relation to resource consumption the impact will be negative, not significant, national, and long term likely. In terms of the regional waste management capacity and circular economy initiatives the development will have a positive, moderate, likely, national and long term impact.

14. TRAFFIC & TRANSPORT

14.1 Introduction

This Chapter examines the impacts of the proposed development on traffic and transport. It describes the impacts and the prevention, mitigation and monitoring measures to reduce their significance. It also assesses a baseline scenario, discusses the cumulative effects and concludes on the residual impacts.

14.2 Methodology

The Chapter is based on a Traffic & Transport Assessment prepared by Systra. The assessment was completed in accordance with Transport Infrastructure Ireland's Traffic and Transport Assessment Guidelines. Traffic count surveys were completed at relevant junctions. The site layout was designed to provide adequate manoeuvrability for heavy goods vehicles and emergency service access.

14.3 Receiving Environment

14.3.1 Road Network

The facility is accessed via Ballymount Road Upper. Calmount Road runs north-east from the M50 to Ballymount Road Upper. Ballymount Road Upper connects Calmount Road with Ballymount Road Lower. The Calmount Road / Ballymount Road Upper junction is a non-signalised roundabout, where the layout does not allow east to west movements onto Ballymount Road Upper.

Traffic surveys were carried out to establish baseline traffic conditions on the local road network at the Ballymount Road Upper/Ballymount Road Lower roundabout, the site entrance on to Ballymount Road Upper and the Calmount Road/Ballymount Road Upper roundabout.

14.3.2 Future Transport Objectives

As part of the South Dublin County Council Six Year Road Programme it is proposed to upgrade the Greenhills Road from Airton Road to the Walkinstown Roundabout with new links to Ballymount Avenue, Limekiln Road and Calmount Road for BusConnects and long-term residential communities.

14.4 Impacts

14.4.1 Construction Stage

The busiest times for traffic movements will be the demolition stage, when the construction debris is removed from the site. During this period, there will be daily average 80 two way truck movements per day (40 in and 40 out). At other times, there will be in the region of 50 truck movements (25 in and 25 out), or less, each day. In terms of construction staff movements, there will typically be 60 workers on site, which may rise to 100 during peak periods. Assuming a car occupancy of 2, this will result in 50 inbound car/van trips before 8 am, and 50 outbound trips from 4pm on.

14.4.2 Operational Stage

There will be an increase in the number of trucks accessing the facility from 167 to 390. Staff travel demand is likely to be similar, or below current levels. All of the road junctions will continue to operate below capacity.

14.5 Baseline Scenario

If the development does not go ahead, the existing junctions will continue to operate as currently and traffic on the public road network will grow in accordance with the latest growth factors published by Transport Infrastructure Ireland in October 2021.

14.6 Prevention & Mitigation

The proposed development will not have a significant effect on the local road network during either the construction or operational phases. However, if it is not properly managed, construction traffic does have the potential to create safety issues, and environmental nuisance. A Framework Construction Traffic Management Plan has been which forms part of the CEMP and how construction traffic will be planned for, managed, and monitored, to ensure that any impacts on local communities, vulnerable users and road users, will be minimised as far as possible.

14.7 Monitoring

In the construction stage the Construction Site Manager will monitor construction vehicle movements in and out of the site to ensure the recommendations in the Construction Traffic Management Plan are being followed. Monitoring is not required in the operational stage.

14.8 Cumulative Effects

The cumulative impacts of the development of the field to the east of the site proceeding at the same time as the proposed development were considered. The traffic impact assessment for the development on the eastern boundary concluded that the development will not have a material impact on the local or national road network and therefore the cumulative will be not significant.

The proposed SEHL development will not conflict with the City Edge Project, which involves an intensification of the area between Ballymount Avenue and the M50, where the proposed development site is located.

14.9 Residual Impacts

14.9.1 Construction Stage

Based on the scale and phasing of the development, the haul routes and the implementation of Traffic Management Plan, construction stage traffic will not result in any localised traffic congestion in the vicinity of the development site. Construction traffic will have a negative, not significant, local, likely and temporary impact on the local road network.

14.9.2 Operational Stage

In the operational stage the development will have a negative, not significant, likely, local and long term impact on traffic.

15. INTERACTION OF THE FOREGOING

15.1 Introduction

Previous Chapters describe the impacts associated with the proposed development and the prevention and mitigation measures that will be implemented. This Chapter discusses the significance of the actual and potential direct, indirect and cumulative effects of the changes due to interaction between relevant receptor. It is based on the physical and environmental conditions of the subject site and the predicted impacts of the development.

15.2 Population & Health/Air/Material Assets: - Traffic

The proposed development has the potential to impact on human beings from air quality, traffic movements and noise. The local road network has the capacity to accommodate the additional traffic and the air quality assessment has established that the development will not result in any breaches of ambient air quality limits. The noise assessment concluded that traffic noise will have a not significant/slight negative impact.

15.3 Climate/Water

The effects of Climate Change were factored into the design of the surface water drainage system.

15.4 Climate/Traffic/Material Assets

The development will impact on Climate as a result of increased greenhouse gas emissions from traffic and the raw materials consumption in the construction stage and the energy consumption in the operational stage. The cumulative effects will be somewhat off-set by the carbon savings associated with the recycling of materials that would otherwise have gone to landfill and incineration.