FEHILY TIMONEY

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE EXPANSION OF A MATERIALS RECOVERY FACILITY AT CAPPOGUE AND DUNSINK, BALLYCOOLIN ROAD, DUBLIN 11

Volume 2 – Main Body Of The EIAR

Chapter 17 – Schedule Of Environmental Commitments

Prepared for: Padraig Thornton Waste Disposal Ltd. T/A Thorntons Recycling

Thorntons recycling

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J5 Plaza, North Park Business Park,
North Road, Dublin 11, D11 PXT0, Ireland

T: +353 1 658 3500 | E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie

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17. SCHEDULE OF ENVIRONMENTAL COMMITMENTS

17.1 Introduction

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

17.2 Population and Human Health

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	7.7.1	All construction phase activities undertaken as part of the construction phase of the proposed development will be carried out in accordance with a robust Construction Environmental Management Plan (CEMP). This CEMP provides for the management and control of dust emissions, noise emissions, materials management, surface water management, spill control, waste management and archaeological, architectural and cultural heritage management. With the adoption of this plan, the proposed development will not have any significant impacts on these receiving environmental elements and associated sensitive human receptors (i.e. site staff and visitors, local dwellings, local land use, users of receiving surface water bodies).	Construction
2	7.7.1	Mitigation measures defined within the following chapters would be applicable in the protection of the environment and human health during the construction phase of the proposed development: • Chapter 9 Geology and Hydrogeology Measures in relation to water management and spill control are defined within this chapter. These measures will ensure the protection of receiving groundwater bodies potentially utilized by humans for drinking water. • Chapter 10 Hydrology and Surface Water Quality – Measures in relation to surface water management and spill control are defined within this chapter. These measures will ensure the protection of receiving surface water bodies and human users of these water bodies (e.g. anglers). • Chapter 11 Air Quality and Climate – Measures in relation to dust mitigation are defined within this chapter. These measures will ensure the minimization of dust and the prevention of dust nuisance impacting local sensitive receptors such as dwelling or agricultural land. • Chapter 12 Noise and Vibration – measures in relation to construction noise control/minimization are defined within this chapter. This will reduce the potential for nuisance noise affecting sensitive receptors in the locality. • Chapter 13 Traffic and Transportation – Measures in relation to traffic management are defined within this chapter. This will reduce the risk of road traffic accidents occurring on or within the vicinity of the site.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
3	7.7.1	Prior to construction a site-specific Safety and Health Risk Assessment/Management Plan and a Safety Statement will be prepared for the project in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 / 2013), as amended. Where elimination of the risk is not feasible, appropriate mitigation and/or control measures will be established. The contractor will be obliged under the construction contract and current health and safety legislation to adequately provide for all hazards and risks associated with the construction phase of the project. FÁS Safe Pass registration cards are required for all construction, delivery and security staff. Construction operatives will hold a valid Construction Skills Certificate Scheme card where required.	Construction
4	7.7.1	The contractor will be responsible for the implementation of procedures outlined in the Safety & Health Plan. Public safety will be addressed by restricting site access during construction. Appropriate warning signs will be posted, directing all visitors to the site manager.	Construction
5	7.7.1	During the construction phase, access to the site will be restricted to ensure that the public will not come into contact with the construction works.	Construction
6	7.7.2	Mitigation measures defined within the following chapters would be applicable in the protection of the environment and human health during the operational phase of the proposed development at EPP: • Chapter 9 Geology and Hydrogeology Measures in relation to water management and spill control are defined within this chapter. • Chapter 10 Hydrology and Surface Water Quality – Measures in relation to surface water management and spill control are defined within this chapter. • Chapter 11 Air Quality and Climate – Measures in relation to odour and dust emissions are defined within this chapter. • Chapter 12 Noise and Vibration – measures in relation to noise control/minimization are defined within this chapter. • Chapter 13 Traffic and Transportation – Measures in relation to traffic management are defined within this chapter.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
7	7.7.2	Activities at the proposed facility will be controlled from a health and safety perspective in accordance with the Safety, Health and Welfare at Work Acts 2005 (as amended). A Health and Safety Management System will be in place for the site. In particular, a Safety Statement, a Traffic Management Plan, an Emergency Plan, an Environmental Accident Prevention Procedure and a Corrective-Preventative Action procedure will in place to manage and control health safety risks posed to persons on and off-site.	Operational
8	7.7.2	A Safety Statement will be developed in order to allow for the comprehensive identification, assessment and control of health and safety risks present on-site.	Operational
9	7.7.2	A detailed traffic/movement plan addressing site control, gate control, speed limit, employee access/egress and visitor movement management will be in place to control movements on-site. As a result it is considered that all risk associated with mobile plant and traffic movements will be comprehensively managed and controlled.	Operational
10	7.7.2	An Emergency Plan will be in place for the site. This will address emergency preparedness and response plans in the event of an unplanned accident or emergency (E.g. fire, environmental incident, site security breach, accidents and incidents). A Fire Protection and Mitigation Plan will be developed and agreed with the fire authority prior to commencement of operations on-site. This plan will serve to ensure the prevention and management of fire on-site.	Operational
11	7.7.2	All of the above health and safety plans and procedures will continue to be implemented on-site for the duration of the operational phase of the proposed development.	Operational
12	7.7.2	A comprehensive and detailed emergency plan in place for managing and responding to potential accidents including major accidents will be adopted and implemented at the facility. In addition to this, the operator has an Environmental Accident Prevention procedure in place onsite which further addresses the management and control of environmental accidents. Health and safety procedures at the proposed facility will address the following aspects: • controlling access to site • emergency response and preparedness	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		• fire protection and mitigation • emissions to atmosphere • emissions to water • accidents and occupational first-aid • system safety rules • application of safety rules • workplace noise and dust • hot working • working in confined spaces • work at heights • control of chains, ropes and lifting gear • risk assessments and method statements • accident & incident reporting investigation • oil and chemical spillage control All of the above health and safety plans and procedures will continue to be implemented on-site for the duration of the operational phase of the proposed development.	
13	7.7.2	The proposed facility will operate under an IE Licence which is administered and enforced by the EPA. All site operations and activities will be undertaken in accordance with this licence. Environmental emissions which may impinge upon human health including noise, air emissions and aqueous emissions will be monitored, regulated and controlled under this license.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		As such, all potential environmental impacts and emission associated with site operations, as well as decommissioning, restoration and aftercare will be regulated, controlled and monitored in accordance with the terms of this licence.	
14	7.7.2	A comprehensive closure, restoration and aftercare management plan will be in place for the proposed facility under the terms of the prospective IE licence for the facility. This plan will provide for the management, control and mitigation of known and unknown environmental risks, liabilities and impacts associated with each site. The regulating authority, the EPA, will be responsible for enforcing the adoption and implementation of these plans and the successful and environmentally safe decommissioning of both sites. The implementation of this plan will mitigate against the potential for any adverse impacts on the receiving environment and human health as a result of potential environmental impacts/emissions from the site.	Decommissioning

17.3 Biodiversity

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	8.7.1	A Construction Environmental Management Plan (CEMP) has been prepared for the proposed development and is included in Volume 3, Appendix 4.2. The CEMP defines the work practices, environmental management procedures and management responsibilities relating to the construction phase of the proposed development. The CEMP describes how the Contractor for the main construction works will implement a site Environmental Management System (EMS) to meet the specified contractual, regulatory and statutory requirements including the requirements identified as part of the environmental impact assessment process.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		The CEMP will be updated prior to construction to take account of any amendments arising during the consenting process and relevant conditions attached to the planning permission and will be implemented for the duration of the construction phase of the project. The CEMP will be a live document and will be reviewed and updated as required. The CEMP defines the following construction phase control measures in relation to surface water management.	
2	8.7.2	Water quality related mitigation measures will be adopted and implemented to ensure the prevention of aquatic ecology during the construction and operational phased of the proposed development. These measures are comprehensively detailed in Section 10.6 of Chapter 10 – Hydrology and Surface Water Quality, of this EIAR.	Construction
3	8.7.3	No disturbance to habitats or flora outside the proposed development area will occur. All works and temporary storage of material will be restricted to the immediate footprint of the development, which will be wholly within the development site boundary. Designated access points will be established within the site and all construction traffic will be restricted to these locations.	Construction
4	8.7.3	To counteract the loss of habitat associated with the development footprint (e.g., 180m of treeline), and further enhance biodiversity at the development site, a total of 651m (linear length) of new hedgerows will be created along the sites boundary and will screen the development from the surrounding area. These hedgerows will be created using native species, of similar composition to the existing treelines onsite that will be removed. The hedgerows will be dominated by hawthorn and elder with willow and alder frequently used.	Construction
5	8.7.3	Additional species such as hazel, holly and guelder rose should be planted also to ensure a diverse mix of species that will provide food and shelter for birds, mammals, and invertebrates at different times of the year. These hedgerows will serve to provide a suitable habitat for bird species using the site for the long-term.	Construction
6	8.7.3	These hedgerows will need to be maintained in a manner that promotes biodiversity insofar as possible. Tightly cut hedgerows with flat tops provide little benefit to wildlife, taller and bulky hedgerows are recommended as this provide more shelter for wildlife.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		When the hedgerows are maintained, stems will be cut a little above the last cut as cutting back to the exact same point depletes the energy of the hedgerow, forms a build-up of scar tissue which discourages new growth. Light annual cutting of hedgerows is not good for wildlife as it limits the production of flowers and fruit. The sites hedgerows will be cut every three to four years in rotation as this will leave areas of undisturbed hedgerows. Cutting equipment used will be sharp so as not to shatter or fray the hedge. Shattering and fraying allows for disease to enter plants and can lead to decay and weaken the vigour of the hedgerow. A finger-bar cutter is recommended as the most appropriate tool to minimise fraying and smashing of branches (Heritage Council, 2017). A flail-type hedge cutter is unsuitable for hedge trimming in situations where hedgerow health is a priority.	
7	8.7.3	Where practical, gaps in the hedgerow will be filled via laying which is a method of rejuvenating hedgerows. Laying involves cutting hedgerow stems partly through near ground level and bending the stem to the required position to fill a gap. New growth then is produced from the cut which thickens the hedge base and rejuvenates it.	Construction
8	8.7.3	Where gaps are too large and to enhance the diversity of the hedgerow, native whips will be planted. Hedgerow maintenance will not be carried out between the 1st of March and 31st of August as this is the nesting period for birds and any maintenance at this time will disturb breeding; this is in keeping with the Wildlife Act 1976 (as amended).	Construction
9	8.7.3	A site-specific Invasive Species Management Plan will also be implemented pre-construction to manage invasive species present on-site (e.g., *Buddleja davidii*), see Appendix 8.2. An additional pre-construction invasive plant species survey will be completed in advance of construction works commencing, to ensure no additional invasive species has spread into the site since the initial ecology walkover survey.	Construction
10	8.7.4	The removal of trees and hedgerow trimming will be undertaken outside of the bird breeding season (March 1st to August 31st inclusive). This will help protect nesting birds. The proposed hedgerows along the site boundary) will serve to provide a suitable habitat for bird species using the site for the long-term.	Construction
11	8.7.5	Construction operations within the proposed development site will take place during the hours of daylight where possible to minimise disturbances to faunal species at night.	Construction
12	8.7.5	The water quality mitigation measures outlined in this EIAR will ensure otter are not negatively impacted by declines in water quality.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
13	8.7.6	As part of best practice construction measures a preconstruction bat survey shall be carried out within the site prior to construction to reconfirm the findings of preplanning surveys. If any new roosts are found during these surveys a relevant bat derogation licence shall be sought prior to construction works commencing and works will be carried out under the terms of the relevant derogation licence this shall include any felling works being undertaken, and works will be timed and conducted in a manner to ensure that no bats are harmed as a result of felling. Relevant guidance including the NRA (2006) guidelines for the treatment of bats during the construction of national road schemes.	Construction
14	8.7.6	Construction operations within the proposed development site will take place during the hours of daylight where possible to minimise disturbances to bat species at night. Lighting shall not be left switched on overnight within the site. The use of lighting within the site can discourage bats from utilising the site during construction.	Construction
15	8.7.6	Where overnight artificial lighting is required for security purposes, an ecologist will be consulted during the detailed lighting design. The lighting design should follow BCT and ILP 2018 best practice guidance: • Incorporate specialist bollard or low-level downward directional luminaries; • Where low-level downward directional luminaries are not appropriates, installation of luminaries with warm spectrum LEDs (<2700 Kelvin) to reduce blue light, with peak wavelengths higher than 550nm; • Mounted luminaires should not tilt upward, with an upward light ration of 0% and with good optical control; • External security lighting should be set on motion-sensors and short (1 min) timers; • Incorporate cowls to lighting throughout the proposed development site to spill away from the site boundaries.	Construction
16	8.7.6	Maximise the separation distance between light mast locations and vegetated features, such as surrounding treelines and the adjacent green fields, where possible.	Construction
17	8.7.7	A pre-construction amphibian survey of the drainage ditch within the proposed development footprint will be undertaken during late winter/early spring to reconfirm the existing environment as described in the ecological appraisal forming part of this assessment, and to check for signs of breeding frog.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
18	8.7.7	If frogspawn is observed in these areas, an appropriate response will be formulated in order to prevent negative impacts to this species, in many cases it is best to attempt to retain at least part of the populations (frog and newt) on site, this obviates the uncertainties often associated with translocation.	Construction
19	8.7.7	Where the population cannot be retained on site, a suitable receptor site will be located in consultation with NPWS. A suitable receptor site will ideally: • be located as close as possible to the donor site (at least within the same county, and the same geology and habitat type); • not currently support a population of the species to be translocated; • not be subject to planning or other threats in the foreseeable future; • be subject to a pre and post-translocation management plan; • be subject to a pre and post-translocation monitoring programme.	Construction

17.4 Soils, Geology and Hydrogeology

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	9.5.1	The construction works will be designed, overseen and checked by geotechnical and/or civil engineers, suitably qualified and experienced in excavation and earthworks design and construction methodologies.	Design
2	9.5.1	A method statement for each element of the works will be prepared by the Contractor prior to any element of the work being carried out.	Design
3	9.5.1	Given that the works comprises a significant proportion of excavation and earthworks, suitably qualified and experienced geotechnical personnel will be required on site to supervise the works.	Design

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
4	9.5.1	The Contract will require programming of the works such that earthworks are not scheduled during severe weather conditions. Where such weather is forecast, suitable measures will be taken to secure the works. The Project Manager is the person responsible for determining when works are to be stopped due to weather.	Design
5	9.5.1	To mitigate against erosion of exposed soils, all excavations will be constructed and backfilled as quickly as possible. Excavations will stop during or prior to heavy rainfall events.	Design
6	9.5.1	All excavations will be carried out such that they are stable or adequately supported. Unstable excavations will not be left unsupported. Where appropriate and necessary, excavations will be protected against the ingress of water or erosion.	Design
7	9.5.1	Where necessary, material which is required to be removed from site during demolition activities and earthworks will be taken to an appropriately authorised and regulated waste management facility for recovery.	Design
8	9.5.1	To ensure the highest standards of environmental protection, the proposed development has been designed to operate in accordance with the following environmental protection standards: • European Commission (2018) BREF on Waste Treatment. • European Commission (2018) BATC on Waste Treatment. • EPA (2011) BAT Guidance Note on the Waste Sector.	Design
9	9.5.1	The site has been designed to ensure that sufficient contaminated firewater retention capacity has been provided on-site, if required.	Design
10	9.5.2.1	A Construction Environmental Management Plan (CEMP) has been prepared for the proposed development and is included in Appendix 4.2 of Volume 3 of this EIAR. Measures for the protection of soils, geology and hydrogeology are defined in this CEMP. The CEMP defines the work practices, environmental management procedures and management responsibilities relating to the construction phase of the proposed development.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		The CEMP describes how the Contractor for the main construction works will implement a site Environmental Management System (EMS) to meet the specified contractual, regulatory and statutory requirements including the requirements identified as part of the environmental impact assessment process. The CEMP will be updated prior to construction to take account of any amendments arising during the consenting process and relevant conditions attached to the planning permission and will be implemented for the duration of the construction phase of the project. The CEMP will be a live document and will be reviewed and updated as required.	
11	9.5.2.2	Control and mitigation measures for the protection of surface water from sediment laden run-off are defined in the Chapter 10 Hydrology and Surface Water Quality of this EIAR. These measures will prevent the accidental discharge of sediment laden run-off generated during construction to groundwater.	Construction
12	9.5.2.3	Control and mitigation measures for the protection of surface water from oil and fuel spills are defined in the Chapter 10 Hydrology and Surface Water Quality of this EIAR. These measures will also prevent the accidental discharge of oil or fuel used during construction to groundwater.	Construction
13	9.5.2.4	Control and mitigation measures for the protection of surface water from the discharge of cement-based products are defined in the Chapter 10 Hydrology and Surface Water Quality of this EIAR. These measures will also prevent the accidental discharge of cement-based products to groundwater.	Construction
14	9.5.2.5	Control and mitigation measures for the protection of surface water from culverting works are defined in the Chapter 10 Hydrology and Surface Water Quality of this EIAR. These measures will also prevent the accidental discharge of polluting material to groundwater during culverting works.	Construction
15	9.5.3	Washwater from wash down of waste process and storage areas on-site will be directed to and stored in a below ground 'dirty water' storage tank situated at the south-east corner of building MRF 3. Discharges to foul sewer from this tank will be via a submersible pump and a rising main into the proposed new foul sewer connection. The underground storage tank and connected pipelines will be integrity tested prior to commencement of operations at the site and once every three years in accordance with the conditions of the prospective IE licence. These tests will need to be part hydrostatic and part visual inspection by chartered engineer.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
		Yard integrity testing (through visual inspection) will also be undertaken once every three years also, to ensure the yard area is impermeable, as designed. A programme for maintenance of infrastructure/retention systems will be developed.	
16	9.5.3	Fuel stored on-site during facility operations will be stored in a bunded double skinned diesel tank.	Operational
17	9.5.3	Oils stored on-site will be stored in indoor locations on sump pallet bunds.	Operational
18	9.5.3	Transformer oil will be stored in a specially designed, bunded container in the ESB sub-station on-site.	Operational
19	9.5.3	Spill kits will be made available on-site. Staff will be trained in the use of spill kits.	Operational
20	9.5.3	Good housekeeping will be adopted to prevent improper storage/generation of waste in outdoor locations (I.e. Regular inspection and clean up, yard sweeping etc.).	Operational
21	9.5.3.1	Facility operations will be carried out in accordance with the conditions an IE licence enforced by the EPA. This authorisation will define strict environmental protection standards in relation to the proposed facility. This authorisation will necessitate the development and implementation of an Environmental Management System (EMS) for the proposed facility.	Operational
22	9.5.3.2	A Fire Protection and Mitigation Plan and Emergency Response Procedures will be developed and implemented during the operation phase of the facility to address potential spills. The site has been designed to ensure the retention of contaminated firewater that may arise during a fire event on-site.	Operational
23	9.5.4	Decommissioning of the proposed facility/site will take place in accordance with the terms of a Closure, Restoration and Aftercare Management Plan and the prospective IE licence for the facility. It is intended to wind the operation down gradually until such time the vast majority of residual wastes and materials are removed from the site. Residual materials will be classified before being dispatched to an appropriately authorised waste management facility for treatment.	Decommissioning
24	9.5.4	To prevent the release of fuels or oils during decommissioning, mitigation measures similar to the fuel/oil control measures proposed for the construction phase of the proposed development will be implemented during decommissioning (See Section 9.5.2).	Decommissioning

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
25	9.5.4	All site washdown and decontamination will take place in accordance with defined method statements. Surface water drainage systems will be sealed shut during washdown / decontamination. Wash water arisings will be retained, taken up and dispatched to an appropriately authorized wastewater treatment facility for final treatment.	Decommissioning

17.5 Surface Water and Hydrology

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	10.6.1	The works will be designed and checked by a civil engineer, suitably qualified and experienced in demolition and site clearance and construction methodologies.	Design
2	10.6.1	Any excavation and construction related works will be subject to a design risk assessment at detailed design stage to evaluate risk levels for the construction, operation, and maintenance of the works. Identified impacts will be minimised by the application of principles of avoidance, prevention, and protection.	Design
3	10.6.1	A method statement for each element of the works will be prepared by the Contractor prior to any element of the work being carried out.	Design
4	10.6.1	The Contract will require programming of the works such that earthworks are not scheduled during severe weather conditions. Where such weather is forecast, suitable measures will be taken to secure the works. The Project Manager is the person responsible for determining when works are to be stopped due to weather.	Design
5	10.6.1	To ensure the highest standards of environmental protection, the proposed development has been designed to operate in accordance with the following environmental protection standards: • European Commission (2018) BREF on Waste Treatment. • European Commission (2018) BATC on Waste Treatment. • EPA (2011) BAT Guidance Note on the Waste Sector.	Design

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
6	10.6.1	Stormwater entering the drainage systems on-site will be directed to suitably designed stormwater attenuation systems. The attenuation volume provided has been designed to accommodate a 1:100-year event in addition to a 20% climate change allowance volume. A hydrobrake will be situated after the attenuation tank and will also be used to limit/control flow off-site. These systems will serve to prevent the rapid release of stormwater generated on hard-standing areas on-site.	Design
7	10.6.1	Stormwater existing the attenuation systems will drain via hydrobrake to NSB 3 Class 1 Bypass Oil Separators (Interceptors). This system will serve to prevent the uncontrolled the release of spilled fuels of oils that may have accidentally become entrained in stormwater on-site.	Design
8	10.6.2.1	A Construction Environmental Management Plan (CEMP) has been prepared for the proposed development and is included in Volume 3, Appendix 4.2. The CEMP defines the work practices, environmental management procedures and management responsibilities relating to the construction phase of the proposed development. The CEMP describes how the Contractor for the main construction works will implement a site Environmental Management System (EMS) to meet the specified contractual, regulatory and statutory requirements including the requirements identified as part of the environmental impact assessment process. The CEMP will be updated prior to construction to take account of any amendments arising during the consenting process and relevant conditions attached to the planning permission and will be implemented for the duration of the construction phase of the project. The CEMP will be a live document and will be reviewed and updated as required. The CEMP defines the following construction phase control measures in relation to surface water management.	Construction
9	10.6.2.2	The surface water drainage ditch will need to be temporarily dammed during culverting works (E.g. Using pea gravel bags and geosynthetic textile). This will be done progressively in sections. This will allow culverting construction works to be isolated from flowing water. A water pumping system will be used to allow for the transport of water downstream during culverting works.	Construction
10	10.6.2.2	These works will only be carried out during a period of dry weather conditions to prevent the run-off of sediment from working areas to the drainage ditch.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
11	10.6.2.2	Culverting works will be carried out in a careful and precautionary manner, and in accordance with a defined method statement. The working areas will be kept as tidy as possible for the duration of the works. All excavated / excess material will be immediately removed from the working area on an ongoing basis as works progress.	Construction
12	10.6.2.2	All personnel carrying out culverting relates works will be obliged to read and fully understand the method statement for the proposed works. A toolbox talk regarding the method statement, the carrying out of the works generally, and the need to protect the quality of water passing through the drainage ditch will be carried out immediately prior to the commencement of works.	Construction
13	10.6.2.2	Temporary cut off trenches will be used to divert surface water run-off away from working areas in and around the drainage ditch during culverting works.	Construction
14	10.6.2.2	Regular inspections of working areas will be undertaken to assess and confirm the implementation of the agreed control measures.	Construction
15	10.6.2.2	Any machines working in or around the drainage ditch must be protected against leakage or spillage of fuels, oils, greases, and hydraulic fuels (e.g. using drip trays).	Construction
16	10.6.2.2	The culvert piping itself will be pre-cast thereby substantially reducing the potential for cement based materials becoming entrained in surface water run-off.	Construction
17	10.6.2.3	The drainage ditch currently traversing the site will be culverted during the advance works stage of construction. This will prevent the release of sediment and cement-based material generated during later stages of construction on-site from discharging to this water body.	Construction
18	10.6.2.3	To minimize soil disturbance and potential for sediment becoming entrained in surface water, all excavations will be constructed and backfilled as quickly as possible. Excavations will stop during or prior to heavy rainfall events.	Construction
19	10.6.2.3	Temporary cut-off trenches and earthen bunds will be used to prevent entry of surface water into excavations, temporary stockpiles, and disturbed working areas, thereby preventing surface waters from being exposed to disturbed soils.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
20	10.6.2.3	Standing water, which could arise in excavations, has the potential to gradually become affected by an increased concentration of suspended solids because of the disturbance to soils. These waters, where they arise, will be pumped from these excavations promptly to prevent this from occurring.	Construction
21	10.6.2.3	Good housekeeping will be practiced on-site to prevent discharge of polluting material to the surface water environment (I.e., post work clean down, end of day clean down, visual inspection and maintenance of the site drainage system elements).	Construction
22	10.6.2.3	A temporary sediment basin/earthen weir will be established at the point of surface water discharge from the site during construction to ensure settlement of suspended solids in surface water prior to discharge. This temporary formation will be regularly inspected and maintained.	Construction
23	10.6.2.4	Refuelling of construction plant and machinery will be carried out at a designated refuelling location which is / will be served by an oil separator. Spill kits will be provided at these locations.	Construction
24	10.6.2.4	Refuelling of plant during construction will only be carried out by trained personnel.	Construction
25	10.6.2.4	A specially trained and dedicated environmental and emergency spill response team will be appointed before commencement of construction on-site.	Construction
26	10.6.2.4	Appropriately sized drip trays will be utilized on-site to prevent the release of fuels or oils during refuelling operations or other work activities.	Construction
27	10.6.2.4	Spill kits containing oil soakage pads and booms will be made available on-site to ensure prompt and adequate clean-up of any accidental fuel or oil spills.	Construction
28	10.6.2.4	An Emergency / Spill Response Procedure will be prepared, and all construction site operatives will be briefed on the response measures required during the site inductions and routine toolbox talks.	Construction
29	10.6.2.4	All site plant will be inspected at the beginning of each day prior to use. Defective plant shall not be used until the defect is satisfactorily fixed. Only emergency breakdown maintenance will be carried out on site and appropriate containment facilities will be provided to ensure that any spills from breakdown maintenance vehicles are contained and removed off site. All major repair and maintenance operations will take place off-site. Vehicles entering the site will be in good working order, free from leakage of fuel or hydraulic fluid.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
30	10.6.2.5	All rubble arising due to demolition will be collected and safely contained in skips / storage containers before immediate dispatch off-site.	Construction
31	10.6.2.5	When cast-in-place concrete is required; all work must be done in dry conditions and must be completed isolated from any flowing water which may enter the drainage ditch to the south of site.	Construction
32	10.6.2.5	No batching of wet-cement products will occur on site. Ready-mixed supply of wet concrete products and where possible, emplacement of pre-cast elements, will take place.	Construction
33	10.6.2.5	No washing out of any plant used in concrete transport or concreting operations will be allowed on-site.	Construction
34	10.6.2.5	Where concrete is delivered on site, only the chute need be cleaned, using the smallest volume of water possible. No discharge of cement contaminated waters to the construction phase drainage system or directly to any artificial drain or watercourse will be allowed.	Construction
35	10.6.2.5	A designated impermeable cement washout container should be provided on-site at a designated area for chute cleaning. This washout facility shall be situated away from surface water drains. This area will be effectively isolated from any flowing water which may enter the drainage ditch which travels to the southeast of the site.	Construction
36	10.6.2.5	Weather forecasting will be utilized to ensure concrete pours are only undertaken during dry weather conditions.	Construction
37	10.6.2.5	Concrete pour sites will be made free of standing water prior to carry out the pour. Plastic covers will be available on-site to prevent entrain of surface water in poured concrete in the case of sudden rainfall.	Construction
38	10.6.2.5	Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event.	Construction
39	10.6.3.1	Facility operations will be carried out in accordance with the conditions an IE licence enforced by the EPA. This authorisation will define strict environmental protection standards in relation to the proposed facility. This authorisation will necessitate the development and implementation of an Environmental Management System (EMS) for the proposed facility. This authorisation will require the Applicant to carry out and report surface water monitoring at the facility on a periodic basis.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
40	10.6.3.2	**Surface Water Drainage System Inspections and Maintenance** Drainage systems including drains, gullies and oil interceptors will be inspected regularly. These systems will be cleaned and maintained as necessary. Oil interceptors periodically in accordance with manufacturer specifications to ensure they function correctly at all times.	Operational
41	10.6.3.2	**Dirty Water Storage and Management** Washwater from wash down of waste process and storage areas in MRF 2 and 3 will be directed to and stored in a below ground 'dirty water' storage tank situated at the south-east corner of building MRF 3. Discharges to foul sewer from this tank will be via a submersible pump and a rising main into the proposed new foul sewer connection. This tank will be integrity tested once every three years in accordance with EPA requirements. This tank will be constructed using reinforced mass concrete and in accordance with underground tank construction specifications defined in the EPA's Guidance Note on Storage and Transfer of Materials for Scheduled Activities (2004). Washwater from wash down of waste process and storage areas in MRF 1 will be discharged directly to foul sewer. These arrangements are shown on a Proposed Services – Surface and Foul Water Drainage drawing provided in Volume 4 of this EIAR (Drawing reference: P21-150-0700-0003).	Operational
42	10.6.3.2	**Material Storage Control Measures** Diesel fuel will be stored in a 45,000 litre tank situated adjacent to the Vehicle Maintenance Building. This tank will be stored within a reinforced mass concrete bund to prevent the accidental discharge of diesel from the primary containment tank. This bund will be constructed in accordance with secondary retention system specifications defined in the EPA's Guidance Note on Storage and Transfer of Materials for Scheduled Activities (2004). This bund will be integrity tested once every three years in accordance with IE licence requirements.	Operational
43	10.6.3.2	**Material Storage Control Measures** Relatively small volumes of oils will be stored in the Vehicle Maintenance Building. These oils will be stored in sump pallets to prevent the accidental release of oils from primary oil containers. These sump pallets will be integrity tested once every three years in accordance with the aforementioned EPA guidance to ensure their ongoing functionality.	Operational
44	10.6.3.2	**Firewater Retention Systems** The proposed development has been designed to ensure that contaminated firewater that could be generated at waste storage and process areas is retained on-site, in accordance with the EPA's Guidance Note to Industry on Fire Water Retention Facilities. The provision of sufficient firewater retention capabilities will be a requirement of the EPA's IE licence for the facility.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
45	10.6.3.2	**Firewater Retention Systems** All firewater generated in the MRF 1, MRF 2 and MRF 3 buildings will be retained within these buildings. These buildings will have an impervious concrete perimeter and access points will be suitably ramped/raised, which will allow the buildings to act as retention structures during a fire event.	Operational
46	10.6.3.2	**Firewater Retention Systems** A fire quarantine area will be situated at the hard stand yard in front of the MRF 3 building. This area will be utilised by the applicant in the event of fire. Waste affected by heat / high temperatures will be hauled to this area in order to prevent fire spread on-site during an emergency event. Firewater will be applied onto waste stored in this quarantine area to suppress waste material affected by fire and reduce the temperature of the waste materials. In the event of a fire, drainage at this dedicated fire quarantine area will be retained through the utilization of emergency slam shut valves. The slam shut valves will be automatically triggered through the activation of the on-site fire alarm. The valves can also be manually shut. When the slam shut valves are closed, and when the stormwater drainage system serving the fire quarantine area is sealed, contaminated firewater generated and accumulating in this area will be retained in this area initially, before flowing into the MRF 3 building by way of gravity fall.	Operational
47	10.6.3.2	**Firewater Retention Systems** Any firewater generated on-site will be retained on-site until sampling and analysis of firewater has taken place and approval is granted by Irish Water to discharge the firewater to foul sewer.	Operational
48	10.6.3.2	**Firewater Retention Systems** The firewater retention system will be consistent with EPA design requirements defined in their Guidance Note to Industry of Fire Water Retention Facilities (2019). These systems will ensure that contaminated firewater generated on-site will be retained on-site, rather than being discharged to the receiving surface water environment by way of site surface water discharge points.	Operational
49	10.6.3.3	A Fire Protection and Prevention Plan, an Accident Prevention Policy, Emergency Response Procedures and Spill Control Procedures will be developed and implemented during the operational phase of the facility to prevent, control and manage potential fire and spill events that may lead to the discharge of polluting material to the receiving surface water environment. All employees will be made aware of these plans and will be provided training in the implementation of these plans relevant to their role. Spill kits will be provided throughout the site at appropriate points to allow for the prompt clean-up of any spills which occur on-site.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
50	10.6.3.4	Waste haulage vehicles will tip waste away from entrances to buildings.	Operational
51	10.6.3.4	Waste will be tipped away from the edge of stockpiles and loading shove will push up tipped materials into stockpiles. This will prevent the dispersal of waste being tipped straight onto stockpiles.	Operational
52	10.6.3.4	Loading shovels will move with the shovel set at floor level so that it pushes and collects waste in front of it and so that waste does not get adhere to the wheels or undercarriage of the vehicle.	Operational
53	10.6.3.4	The yard area will be swept and cleaned daily.	Operational
54	10.6.3.5	Surface water quality monitoring will be implemented on an ongoing basis at the site during facility operations in accordance with the requirements of the IE licence to ensure the efficacy of the operational phase surface water management mitigation measures proposed, and to ensure that only uncontaminated surface water is discharged from the site to the receiving surface water environment.	Operational
55	10.6.3.6	Decommissioning and closure of the facility will take place in accordance with the Closure, Restoration and Aftercare Management Plan developed for the facility, and in accordance with the requirements of the EPA's Guidance to Licensees on Surrender, Cessation and Closure of Licensed Sites (2012).	Decommissioning
56	10.6.3.6	Where appropriate, the same mitigation measures defined for construction and operational phase activities will be applied during the decommissioning phase (I.e., spill prevention measures, use of oil interceptors).	Decommissioning
57	10.6.3.6	All site washdown and decontamination will take place in accordance with defined method statements. Surface water drainage systems will be sealed shut during washdown / decontamination. Wash water arisings will be retained, taken up and dispatched to an appropriately authorized wastewater treatment facility for final treatment.	Decommissioning

17.6 Air Quality and Climate

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	11.5.1.1	A Construction Environmental Management Plan (CEMP) has been developed in order to manage, prevent and control potential environmental impacts associated with Construction Phase activities. This document is included as Appendix 4.2, Construction Environmental Management Plan, in Volume 3 of this EIAR. This document outlines construction phase activities to be undertaken and environmental control and mitigation measures to be adopted to prevent adverse impacts on the environment due to these construction activities.	Construction
2	11.5.1.1	A detailed dust minimisation plan associated with a medium-level risk of dust impacts is outlined in Appendix 11.3 (Volume 3 of the EIAR). This plan draws on best practice mitigation measures from Ireland, the UK and the USA in order to ensure the highest level of mitigation possible.	Construction
3	11.5.1.1	Prior to demolition, blocks will be soft striped inside buildings (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	Construction
4	11.5.1.1	Drop heights from loading shovels and other loading equipment will be minimised.	Construction
5	11.5.1.1	If encountered, asbestos on site will be removed by a suitably qualified contractor prior to any demolition taking place in accordance with an Asbestos Management Plan and HSA Guidelines on the management and Disposal of Asbestos defined in their Guidance Document entitled 'Practical Guidelines on ACM Management and Abatement.	Construction
6	11.5.1.1	Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic.	Construction
7	11.5.1.1	Any road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions.	Construction
8	11.5.1.1	Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary.	Construction
9	11.5.1.1	Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
10	11.5.1.1	During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.	Construction
11	11.5.1.1	At all times, these procedures will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.	Construction
12	11.5.1.2	Prevention of on-site or delivery vehicles from leaving engines idling, even over short periods.	Construction
13	11.5.1.2	Ensure all plant and machinery are well maintained and inspected regularly.	Construction
14	11.5.1.2	Minimising waste of materials due to poor timing or over ordering on site will aid to minimise the embodied carbon footprint of the site.	Construction
15	11.5.2.1.1	An odour management plan will be developed for the proposed development. This plan will include management strategies for the prevention of emissions and a strict preventative maintenance and management program for ensuring that all odour mitigation techniques remain operational at optimal capacity throughout all operational scenarios.	Operational
16	11.5.2.1.1	Good housekeeping practices (internally and externally) and a closed-door management strategy will also be maintained at all times. Fasting acting roller doors will be installed at MRF Building 1 to minimize the potential for odour existing the building.	Operational
17	11.5.2.1.1	The facility will have a high level of cleanliness with outdoor surfaces cleaned down on a daily basis.	Operational
18	11.5.2.1.1	Cleaning schedules will be developed in accordance with insurer and manufacturer specifications and will be overview and implemented by the Applicant's QEHS team.	Operational
19	11.5.2.1.1	Cleaning of waste and storage bins, trucks carrying odorous materials and holding vessels will be undertaken regularly with an increased frequency in summer months	Operational
20	11.5.2.1.1	Indoor food waste and rMSW processing and storage areas will be subject to washdown on a daily basis during operations.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
21	11.5.2.1.1	All spills, overflows and leaks will be cleaned up promptly with all operators aware and trained in the relevant SOP for this procedure.	Operational
22	11.5.2.1.1	Washwater from wash down of waste process and storage areas on-site will be directed to and stored temporarily in a below ground 'dirty water' storage tank situated at the south-east corner of building MRF 3. Discharges to foul sewer from this tank will be via a submersible pump and a rising main into the proposed new foul sewer connection. No odour generation is envisaged from this tank due to its underground, enclosed nature.	Operational
23	11.5.2.1.1	As the site will hold an IE licence from the EPA once operational, this will require regular maintenance and upkeep of the OCU in MRF1 to ensure the abatement system is working satisfactorily. Periodic monitoring of odour emissions from the OCU will be carried out by a third-party monitoring contractor to ensure and verify that no odour nuisance is occurring. Odour emission monitoring results will be compared with emission limit values prescribed in the IE licence granted and enforced by the EPA. These monitoring results will be reported to the EPA as the regulatory body.	Operational
24	11.5.2.1.2	The existing facility currently implements several best practice measures to prevent significant dust emissions from the site, these measures will continue to be enforced once the proposed development is in place.	Operational
25	11.5.2.1.2	Storage and processing of wastes will occur within the proposed buildings.	Operational
26	11.5.2.1.2	The yard will be regularly misted, and a road sweeper vehicle will be employed as required to ensure the site area is free from a build-up of dust and dirt.	Operational
27	11.5.2.1.2	Internal building floors will be regularly cleaned which will prevent dust emissions. A team of operatives will be assigned to carry out such clean downs on a continuous basis.	Operational
28	11.5.2.1.2	In addition to the above, a misting system will be employed in MRF 3 (where C&D waste will be handled and processed) to drop dust out of the air closer to its generation sources.	Operational
29	11.5.2.1.2	Periodic dust monitoring will be carried out at boundary locations at the site. Dust monitoring results will be compared with dust emission limit values prescribed by the EPA under the prospective IE licence for the facility to verify that nuisance levels of airborne dust or not arising due to site activities. These monitoring results will be reported to the EPA on an ongoing basis as the competent regulatory body.	Operational

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
30	11.5.2.2	Vehicle and machinery specific mitigation measures can be implemented by ensuring that all vehicles are regularly maintained and upgraded where possible to the best available technology in order to ensure emissions are minimised. In addition, there will be no idling of vehicles/machinery on site.	Operational
31	11.5.2.2	4 no. car parking spaces and 8 no. RCV parking spaces on-site will be provided with EV charging facilities to facilitate the transition toward use of electric cars and waste collection vehicles.	Operational
32	11.5.2.2	A Mobility Management Plan will be adopted and implemented to promote sustainable travel. Adequate cycle parking provisions will be provided on-site. 24 bicycle racks will be provided adjacent to the eastern façade of the Administration building. Cyclists arriving on-site will use Entrance 1 to access this location. These bicycle racks will cater to all staff members working at the site.	Operational

17.7 Noise and Vibration

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	12.7.1	Installation of temporary hoarding around the site to screen noise from the site.	Construction
2	12.7.1	Periodic monitoring of noise at the nearest noise sensitive locations during the construction works, in particular during site clearance activities taking place in close proximity to Coolbrook Cottages.	Construction
3	12.7.1	If the proposed limits are exceeded during the construction phase, site operations must cease and measures will be put in place to ensure a reduction in noise on-site (e.g. phasing works in a manner that reduces level of activity or plant operation at any one point in time, selecting quieter working methods and using noise barriers/enclosures to screen/enclose noisy equipment.	Construction
4	12.7.1	Working hours at the site during the construction phase will be limited to 07:00-19:00hrs on weekdays and 08:00-14:00hrs on Saturdays (unless otherwise agreed with the Local Authority). There will be no construction works undertaken on Sundays or public holidays.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
5	12.7.1	A speed limit of 15km/h will be enforced on-site.	Construction
6	12.7.1	Drop heights for construction materials will be minimised.	Construction
7	12.7.1	Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006).	Construction
8	12.7.1	Operators of all mobile equipment will be instructed to avoid unnecessary revving of machinery.	Construction
9	12.7.1	Use of appropriate plant and equipment where possible with low noise level generation where possible (Clause 8.2.2 Specification and substitution).	Construction
10	12.7.1	All construction plant to be used on site should have effective well-maintained silencers.	Construction
11	12.7.1	Noise generating equipment will be located as far as possible away from local noise sensitive areas identified.	Construction
12	12.7.1	Regular and effective maintenance of site machinery including a full maintenance schedule to ensure that all pieces of equipment are in good working order. With efficient use of well-maintained mobile equipment, considerably lower noise levels than those predicted can be attained.	Construction
13	12.7.1	Training of site staff in the proper use and maintenance of tools and equipment.	Construction
14	12.7.1	Avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment.	Construction
15	12.7.1	Machines that could be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Construction
16	12.7.1	Plant start-up will be sequential rather than all together.	Construction
17	12.7.1	Plant known to emit noise strongly in one direction will, when possible, be orientated so that the noise is directed away from noise-sensitive locations.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
18	12.7.2	**Roller Shutter Doors** The noise modelling is based on closed roller shutter doors. Fast acting roller shutter doors will be required. To meet the noise criteria there will be operational restrictions, e.g. doors will need to be timed to close as soon as possible after vehicle entry and exit. Noisier plant will not be operated in instances where doors are left open for a significant period of time.	Operational
19	12.7.2	**Minimum Sound Insulation of Building Elements** The minimum sound insulation performance of building elements, as outlined in Table 12-19 of Chapter 12 – Noise and Vibration, of Volume 2 of this EIAR, must be achieved for the proposed buildings (MRF1, MRF2, MRF3 & Maintenance Building). A suitable configuration must achieve the specified sound insulation performance, at a minimum, with the final design and construction overseen by an acoustic consultant.	Operational
20	12.7.2	**Truck Wash** The use of the truck wash should be restricted to daytime hours only. There should be no truck wash operations during the evening and night periods (19:00hrs – 07:00hrs).	Operational
21	12.7.2	Orientating plant to minimise the noise impact on nearby receptors where practicable.	Operational
22	12.7.2	Ensuring that noisy plant and equipment are not used for long periods of time and at inappropriate times.	Operational
23	12.7.2	Phasing of works and reduce percentage on-time to lower the noise impact.	Operational
24	12.7.2	Carrying out regular monitoring of noise levels as per requirements of the EPA licence. Carrying out additional monitoring during critical periods.	Operational
25	12.7.2	Investigate and record noise complaints and take action to mitigate where levels are above the licence limit.	Operational
26	12.7.2	A speed limit of 15km/h will be enforced on-site.	Operational
27	12.7.2	Drop heights for waste materials will be minimised.	Operational

17.8 Traffic and Transportation

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	13.8.1	It is proposed that construction traffic will access the site via. L3090 Ballycoolin Road and the existing access arrangements within Cappogue Industrial Park. The construction access shall be managed by signage and flagmen. A banksman and active traffic control will be employed during times when construction activity is more intense, for example as during concrete pours.	Construction
2	13.8.1	Normal site working hours are 07:00-19:00hrs on weekdays and 08:00-14:00hrs on Saturdays with no working on Sundays or Public Holidays.	Construction
3	13.8.1	Construction traffic will be scheduled to typically arrive at site prior to the traditional commuter peak hour in the morning and after the evening peak hour. It is anticipated that the generation of HGV's during the general construction period will be evenly spread throughout the day and as such will not impact significantly during the peak periods. An appropriate routing strategy for HGVs will be agreed and implemented as part of the Construction Management Plan. Construction traffic is not considered likely to give rise to reduced operational performance of the local road network.	Construction
4	13.8.1	The contractor will decide the construction programme to be implemented and will be required to finalise a Construction Management Plan with the Planning Authority. The existing road network serving the site can accommodate this type of traffic and the levels of construction activity forecast.	Construction
5	13.8.1	Impacts arising from construction traffic will be managed and mitigated through the agreement of suitable haul routes.	Construction
6	13.8.1	Provision of sufficient onsite parking to accommodate construction personnel, visitor parking and deliveries and reducing insofar as practicable potential overflow onto the local network. No contractor parking will be permitted outside the proposed development site or any public roads outside the confines of the application site.	Construction
7	13.8.1	Encourage/require the Contractor to transport construction personnel and to encourage staff to travel by public transport or to share vehicles to reduce parking demand at the site.	Construction
8	13.8.1	Inform construction staff of the alternative modes of transport highlighting the availability of non-car modes of transport and the accessibility of the site by bus and bicycle.	Construction

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
9	13.8.1	A detailed Traffic Management Plan incorporating the mitigation measures set out in the outline CEMP included as part of the EIAR, will be formalised and agreed with the local authority prior to the commencement of construction.	Construction
10	13.8.1	A dedicated competent Traffic Management Coordinator will be appointed for the duration of the project and this person will be the main point of contact for all matters relating to traffic management on the project.	Construction
11	13.8.1	The plan will identify those roads that will be used to access this project and where appropriate will indicate roads not to be used by construction traffic.	Construction
12	13.8.1	All workers and all drivers delivering materials to site will receive a comprehensive site induction which will include, as appropriate, a section on traffic management and clear guidance on the routes to site to be used/not used.	Construction
13	13.8.1	All temporary traffic management will be planned and executed in accordance with best practice and by reference to Chapter 8 of the Traffic Signs Manual.	Construction
14	13.8.1	Temporary wheel/vehicle washing facilities will be provided subject to agreement with the planning authority.	Construction
15	13.8.2	A dedicated Logistics Coordinator will be appointed during the operational phase of the materials processing and transfer facility, and this person will be the main point of contact for all matters of traffic management relating to the project. It is likely that this role will be fulfilled by the existing site Operations Manager.	Operational
16	13.8.2	The haul routes to be used for access to the proposed facility are identified in Appendix 13-4, Figure 1. All drivers and companies delivering to or collecting from the site, during both the construction and operational phases, will be made aware of the haul routes to use.	Operational
17	13.8.2	All workers and all drivers delivering or collecting materials to site will receive a comprehensive site induction which will include, as appropriate, a section on traffic management and clear guidance on the haul routes to the facility to be utilised.	Operational
28	13.8.2	The Applicant intends implementing a Mobility Management Plan during the operational phase of the proposed development. This plan will encourage the use of other modes of transport other than private, namely cycling, walking and public transport. The Plan will create awareness among site staff of the environmental cost associated with private car use and will promote and support sustainable travel patterns at a site-specific level.	Operational

17.9 Archaeological, Architectural and Cultural Heritage

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	14.5	Monitoring will be carried out under licence to the Department of Housing, Local Government and Heritage and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring. More information on the proposed mitigation methods to be employed during the construction phase of the proposed development is contained in Appendix 14.2.	Construction

The operational and decommissioning phase of the proposed development will not have any signficant effect on archaeological, architectural or cultural heritage resources. As such, no mitigation measures are required.

17.10 Landscape and Visual Impacts

Mitigation No.	EIAR Section Reference	Description of Mitigation Measures/ Commitments	Stage
1	15.5.1	Apart from the typical construction hoarding which will help screen views of construction activities at ground level within the application site, there are no specific landscape and visual mitigation measures deemed necessary / proposed during the temporary construction phase.	Construction
2	15.5.2	There are no specific landscape and visual mitigation measures deemed necessary during the operational phase. However, it is noted that the eastern, western and southern perimeter of the application site boundary will be planted with a native screening hedgerow mix (651 m in linear length), and this has been depicted in 'Mitigation Established' photomontages and assessed as part of the visual impact assessment. Details of the landscaping measures are indicated on Drawing No. LD-THRNTNS-1-0 Landscape Masterplan contained in Appendix 15.2 of Volume 3 of this EIAR.	Operational

		The planting will be allowed to grow to maturity (height of 6 – 8 m) and whilst this is not high enough to completely screen the proposed development, it will work to soften its appearance and help to anchor the development into this landscape setting. This native planting will also serve to help offset the loss of scrubland associated with the proposed development. Furthermore, a light grey tone is used for the proposed buildings because they are most likely to be viewed against a backdrop of sky and the intention is to reduce the degree of visual contrast.	

FEHILY TIMONEY

CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE & PLANNING

www.fehilytimoney.ie

CORK OFFICE
Core House Pouladuff Road, Cork, T12 D773, Ireland
+353 21 496 4133

Dublin Office
J5 Plaza, North Park Business Park, North Road, Dublin 11, D11 PXT0, Ireland
+353 1 658 3500

Carlow Office
Unit 6, Bagenalstown Industrial Park, Royal Oak Road, Muine Bheag, Co. Carlow, R21 XW81, Ireland
+353 59 972 3800