

RECEIVED: 09/01/2024

16. SCHEDULE OF MITIGATION

16.1 Introduction

All mitigation measures relating to the pre-commencement, construction, operational and decommissioning phase of the Proposed Development are set out in the relevant chapters of this EIAR. They are also included in Table 16-1 below.

The mitigation measures have been grouped together according to their environmental field/topic and are presented under the following headings:

- > Construction Management (Pre & During Construction)
- > Fuel and Oil Control
- > Surface Water Mitigation
- > Biodiversity
- > Air Quality and Dust Control
- > Noise
- > Land, Soils and Geology
- > Landscape and Visual
- > Cultural Heritage
- > Material Assets including Traffic
- > Population and Human Health
- > Waste Management

The mitigation proposals and monitoring measures in the below format provides an easy to audit list that can be reviewed and reported on during the pre-commencement, construction, operational and decommissioning phases of the project. The proposal for site inspections and environmental audits are set out in the Environmental Management Plan (EMP) which is included as Appendix 4-2 of this EIAR. The tabular format in which the below information is presented, can be further expanded upon prior to and during the pre-commencement, construction, operational and decommissioning phase to provide a reporting template for site compliance audits.

It is intended that the EMP will be updated where required prior to the commencement of construction and operation to include all mitigations and monitoring measures, conditions and or alterations to the EIAR and application documents should they emerge during the course of the planning process and would be submitted to the Planning Authority for written approval.

RECEIVED: 09/07/2024

16.2

EIAR Mitigation Measures

Table 16-1 Schedule of Mitigation

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
Construction Management				
Pre-Commencement Phase				
Surface Water Mitigation				
1	NIS Section 6.3.1.1.1	<ul style="list-style-type: none"> > A site compound will be established within the site boundary. The compound will be used for storage of material, machinery, fuel, and workers facilities. > All construction materials and substances will be stored in the site compound. > Overall surface water runoff from the site will be generally low due to the permeable nature of the soils and subsoils and no watercourses were recorded within site. However, on a precautionary basis, silt fencing will be erected on the eastern boundary of construction area which is the low point of the sloped site. This will prevent the runoff of pollutants into the wider environment. > The silt fence will comprise wooden posts with geotextile membrane buried approximately 250mm below ground level. This fence will be kept in good repair and will be routinely inspected. > The silt fences will be left in place throughout construction until all exposed soil has revegetated. > The appointed contactor will be fully briefed by an ecologist as to the sensitive nature of the site and the required mitigation measures. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
2	EIAR Chapter 7	<p>Excavation of soil and subsoil deposits will be required for site levelling and for the installation of infrastructure and foundations for the Proposed Development. All excavated overburden material will be reused on site either for infilling or for landscaping.</p>		
3	NIS Section 6.3.1.2.1	<p>Prior to the commencement of any subsequent operational activities, the necessary mitigation measures will be put in place to ensure that no silt laden water runoff generated at the site will flow to nearby watercourses or groundwater thus ensuring the protection of surface water during the both the site enabling works and operational phase. This will involve confirming the location of all existing services and delineating between drainage systems. Surface waters will be managed to ensure the prevention of run off from areas where excavation occur does not result in silt laden water entering the wider environment. Excavated spoil and soil material will be reused within the confines of the site to create berms adjacent to the site boundary. The berms will be sealed with the back of an excavator bucket to reduce the risk of run-off during prolonged periods of rainfall.</p>		
4	EMP Section 3.2.2	<ul style="list-style-type: none"> A risk assessment and method statement must be provided by the Contractor prior to commencing works. Fences will be erected around areas of infestation, as confirmed by test pits, and warning signs shall be erected. A designated wash-down area will be created, where power-washed material from machinery can be contained, collected, and disposed of with other contaminated material. This area will contain a washable membrane or hard surface. Stockpile areas will be chosen to minimise movement of contaminated soil. Stockpiles will be marked and isolated. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> Contaminated areas which will not be excavated will be protected by a root barrier membrane if they are likely to be disturbed by machinery. Root barrier membranes will be protected by a layer of sand above and below and topped with a layer of hardcore. The use of vehicles with caterpillar tracks within contaminated areas will be avoided to minimise the risk of spreading contaminated material. Any material that is imported onto any site will be verified by a suitably qualified ecologist to be free from any invasive species listed on the 'Third Schedule' of Regulations 49 & 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I 477 of 2011). This will be carried out by searching for rhizomes and plant material. Any soils or subsoils contaminated with invasive species will be sent for disposal to an authorized waste facility. A suitably qualified ecologist will be on site to monitor and oversee the implementation of invasive species remedial works. 		
Biodiversity				
5	EIAR Chapter 6	<p>A grassland management plan will be developed prior to construction of the Proposed Development and will be informed by up-to-date botanical surveys at both the existing and receptor sites. At a high-level grassland management and establishment will include the following:</p> <ul style="list-style-type: none"> The application of fertiliser or chemicals (pesticides, fungicides etc.) will cease on the lands of the receptor site; Hay from the existing Proposed Development site will be cut in August/September and spread in the receptor site to ensure that floral diversity is similar between the two sites. Prior to the spreading of hay the lands within the receptor site will be prepared by ploughing the existing turf. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> The sward in these lands will be removed at least once a year, either by grazing (preferably sheep) or hay harvest. This should be undertaken at the end of the flowering season i.e. August/September 		
Cultural Heritage				
6	EIAR Chapter 12	<ul style="list-style-type: none"> Pre-development archaeological testing of the proposed extraction area should be carried out under licence from the National Monuments Service. A report on the testing should be compiled on completion of the work and submitted to the relevant authorities. <p>Further mitigation such as preservation in situ (avoidance), preservation by record (excavation), buffer zones and/or archaeological monitoring of topsoil removal may be required depending on the results of the testing.</p>		
Construction Phase				
Construction Management				
7	EIAR Chapter 5	<ul style="list-style-type: none"> The operation of heavy machinery during both construction and operational phase poses a potential health and safety risk to the employees of the Proposed Development. A site-specific Health and Safety Plan will be in place for the proposed facility. All site staff will be made aware of and adhere to the company Health and Safety Plan. Only appropriately qualified and trained personnel will be permitted to operate machinery onsite. Appropriate barriers and signage will be used. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> The Proposed Development site will not be accessible to members of the public. The site will also be secure to prevent the risk of trespass through signage and provision of barriers. 		
Biodiversity				
8	EIAR Chapter 6	<ul style="list-style-type: none"> Where lighting is unavoidable during construction, low-intensity lighting and motion sensors will be used to limit illumination. Exterior lighting, during construction, will be designed to minimize light spillage, thus reducing the effect on areas outside the Proposed Development, and consequently on bats i.e., Lighting will be directed away from mature trees/treelines around the periphery of the site boundary to minimize disturbance to bats. Directional accessories will be used to direct light away from these features, e.g., through the use of light shields (Stone, 2013). The luminaries will be of the type that prevent upward spillage of light and minimize horizontal spillage away from the intended lands. Existing trees and hedgerows will be protected throughout the construction period of the development in accordance with industry best practice. All plant and equipment for use will comply with Statutory Instrument No 359 of 1996 “European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations 1996”. Plant machinery will be turned off when not in use. Operating machinery will be restricted to the proposed works site area. Vegetation removal will be done so in line with the Wildlife Act 1976 (as amended) and will not be undertaken between the bird nesting season (1st March – 31st August) 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
9	Chapter 6	<ul style="list-style-type: none"> ➤ All plant and equipment for use will comply with Statutory Instrument No 359 of 1996 “European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations 1996”. ➤ Plant machinery will be turned off when not in use. ➤ Operating machinery will be restricted to the proposed works site area. ➤ Vegetation removal will be done so in line with the Wildlife Act 1976 (as amended) and will not be undertaken between the bird nesting season (1st March – 31st August) 		
Fuel and Oil Control				
10	EIAR Chapter 8	<ul style="list-style-type: none"> ➤ No batching of concrete will occur on site. Ready-mixed supply of wet concrete products and where possible, emplacement of pre-cast elements, will take place. ➤ Raw or uncured waste concrete shall be disposed of by removal from the site; ➤ Wash down water from exposed aggregate surfaces, cast-in-place concrete and from concrete trucks shall be impounded in lined lagoons and treated in accordance with the dewatering discussed above. ➤ Only the chute of the concrete delivery truck will be permitted to be cleaned on site, using the smallest volume of water necessary; ➤ Concrete trucks will be directed back to their batching plant for full washout; and, ➤ Concrete pour sites shall be free of standing water to mitigate the risk of run-off being polluted with cementitious material. Furthermore, concrete pours shall be avoided where prolonged periods of heavy rain are forecast 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
11	EMP Section 3.1.1.2 & NIS Section 6.3.1.1.1	<ul style="list-style-type: none"> ➤ 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. Where possible, pre-cast elements for concrete works will be used. ➤ No washing out of any plant used in concrete transport or concreting operations will be allowed on-site. ➤ No discharge of cement contaminated waters to the drainage system or directly to any artificial drain or watercourse will be allowed. ➤ Use weather forecasting to plan dry days for pouring concrete. ➤ Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event. 		
12	EMP Section 4.1	<ul style="list-style-type: none"> ➤ Undertake inspections and reviews to ensure the works are carried out in compliance with the EMP. ➤ Monitor the implementation of the EMP, particularly all proposed/required Environmental Monitoring. ➤ Ensure proper mitigation measures are initiated and adhered to during both the construction and operational phase. ➤ Ensure adequate arrangements are in place for site personnel to identify potential environmental incidents. ➤ Ensure that details of environmental incidents are communicated in a timely manner to the relevant regulatory authorities, initially by phone and followed up as soon as is practicable by email. ➤ Support the investigation of incidents of significant, potential or actual environmental damage, and ensure corrective actions are carried out, recommend means to prevent recurrence and communicate incident findings to relevant parties. ➤ Identify environmental training requirements and arrange relevant training for all levels of site-based staff/workers; and 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
13	NIS Section 6.3.1.1.1	<ul style="list-style-type: none"> Excavation depths will not come to within 3 meters of the groundwater table. Material that is not re-used will be transported off site to a designated waste facility. Stockpiling of soil during construction will take place in designated areas within the site boundary away from any watercourses. A silt fence will be erected around any stockpiling of material to prevent any sediment-laden run-off occurring. 		
14	EIAR Chapter 5	<ul style="list-style-type: none"> Traffic on site will be controlled by the Site Manager. All plant and machinery will be serviced before being mobilised to the site; Refuelling will be completed in a controlled manner always using drip trays (bundled container trays); Drip-trays will be used for fixed or mobile plant in order to retain oil leaks and spills; Only designated trained operators will be authorised to refuel plant on site; Procedures and contingency plans will be set up to deal with emergency accidents and spills; and, <p>An emergency spill kit with oil boom, absorbers etc. will be kept on site for use in the event of an accidental spillage.</p>		
Waste Management				
15	NIS Section 6.3 & EMP Section 3.1.1.4	<ul style="list-style-type: none"> Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> ➤ If applicable, eliminate any sources of ignition in the immediate vicinity of the incident. ➤ Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill. ➤ If possible, cover or bund off any vulnerable areas where appropriate such as drains or watercourses. ➤ If possible, clean up as much as possible using the spill control materials. ➤ Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited. ➤ Notify the Site Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action and further investigate the incident to ensure it has been contained adequately. ➤ The Site Manager will notify the appropriate regulatory body such as Galway County Council, if deemed necessary. 		
Surface Water Mitigation				
16	EIAR Chapter 8	<ul style="list-style-type: none"> ➤ All plant and machinery will be serviced before being mobilised to the site; ➤ Refuelling will be completed in a controlled manner using drip trays (bund container trays) at all times; ➤ Drip-trays will be used for fixed or mobile plant in order to retain oil leaks and spills; ➤ Only designated trained operators will be authorised to refuel plant on site; ➤ Procedures and contingency plans will be set up to deal with emergency accidents and spills; and, 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> An emergency spill kit with oil boom, absorbers etc. will be kept on site for use in the event of an accidental spillage. 		
17	NIS Section 6.3.1.1.1	<ul style="list-style-type: none"> Surface and/or ground water generated from the works during construction will be discharged to ground on the site through a silt bag at a discharge area at a distance of over 50m from any watercourse. The perimeter of the discharge area will be surrounded with double silt fencing. Alternatively, this water will be tankered off site if required. There will be no direct discharge of construction waters to any watercourse or to groundwater. All plant will be inspected prior to use. Defective plant shall not be used until the defect is satisfactorily fixed. All major repair and maintenance operations will take place off site. Vehicles will never be left unattended during refuelling. Only dedicated trained and competent personnel will carry out refuelling operations and plant refuelling procedures shall be detailed in the contractor's method statements. All fuel will be stored in bunded tanks within the construction compound. All refuelling will take place in a designated area next to the tanks. Fuels, lubricants, and hydraulic fluids for equipment used on the site will be carefully handled to avoid spillage, properly secured against unauthorized access or vandalism, and provided with spill containment. Potential impacts caused by spillages etc. during the construction phase will be reduced by keeping spill kits and other appropriate equipment on-site. No washing out of any plant used in concrete transport or concreting operations will be allowed on-site. Where concrete is delivered on site, only chute cleaning will be permitted, using the smallest volume of water possible. This will be directed into a concrete washout area, typically built using straw bales 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<p>and lined with an impermeable membrane. Use weather forecasting to plan dry days for pouring concrete.</p> <p>➤ Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event.</p>		
Air Quality and Dust Control				
18	EIAR Chapter 4 & 5	<p>The following measures will be enforced to ensure that dust and vehicle emission nuisance during the construction and operational phases beyond the site boundary is minimised.</p> <ul style="list-style-type: none"> ➤ In periods of extended dry weather, dust suppression may be necessary in operational areas and along access roads to ensure dust does not cause a nuisance. ➤ If necessary, a water bowser will be used to dampen down haul roads and site compounds to prevent the generation of dust. ➤ All on-site plant and vehicles will be maintained in good operational order, thereby minimising any emissions that arise. ➤ Fixed plant will be turned off when not in use. ➤ When stationary, delivery and on-site vehicles will be required to turn off engines. ➤ Users of the site will be required to ensure that all delivery vehicles are suitably maintained to ensure that emissions of engine generated pollutants is kept to a minimum. ➤ The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. ➤ Water spraying of conveyors and stockpiles will be carried out when necessary to reduce the production of dust. ➤ Water sprays will be used as required during transfer and loading activities, during dry and/or windy conditions. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> Any hardstanding areas/site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff. The transport of material, which has significant potential to cause dust, will be undertaken in tarpaulin-covered vehicles. All plant and machinery will be maintained in good operational order while onsite. 		
19	EIAR Chapter 5	<p>The following measure will be enforced to ensure that dust and vehicle emission nuisance during the construction and operational phases beyond the site boundary is minimised.</p> <ul style="list-style-type: none"> All on-site plant and vehicles will be maintained in good operational order, thereby minimising any emissions that arise. Fixed plant will be turned off when not in use. When stationary, delivery and on-site vehicles will be required to turn off engines. Users of the site will be required to ensure that all delivery vehicles are suitably maintained to ensure that emissions of engine generated pollutants is kept to a minimum. The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. Water spraying of conveyors and stockpiles will be carried out when necessary to reduce the production of dust. Water sprays will be used as required during transfer and loading activities, during dry and/or windy conditions. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> Any hardstanding areas/site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff. The transport of material, which has significant potential to cause dust, will be undertaken in tarpaulin-covered vehicles. All plant and machinery will be maintained in good operational order while onsite. 		
20	EIAR Chapter 9	<ul style="list-style-type: none"> All vehicles and plant will be maintained in good operational order while onsite, thereby minimising any emissions that arise. If necessary, sporadic wetting of loose stone, sand and soil surface will be carried out during to minimise movement of dust particles to the air. All plant and materials vehicles shall be stored in dedicated areas (on site). Overburden will be progressively removed from the working area in advance of extraction. The internal access roads which will be installed during the site enabling works within the confines of site will be regularly inspected for cleanliness and cleaned as necessary. The adjacent public road will be inspected on a regular basis throughout the site enabling works phase of the project. If required, road sweeping or water misting will be carried out 		
21	EIAR Chapter 9	Dust can be generated from many on-site activities. The extent of dust generation will depend on the type of activity being undertaken, the location, the nature of the dust, i.e., soil, overburden, etc and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather. Traffic movements associated with		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<p>the site enabling works also have the potential to generate dust. These effects will not be significant and will be relatively Temporary term in duration.</p> <ul style="list-style-type: none"> ➤ When necessary, sections of the site will be dampened down with water. ➤ Where the transport of any fine materials has the potential to generate it dust, will be undertaken in tarpaulin-covered vehicles where necessary. ➤ The roads adjacent to the site will be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. ➤ Water bowser movements will be carefully monitored to avoid, insofar as reasonably possible, increased runoff. 		
Noise				
22	EIAR Chapter 4, 5 & 10	<p>The calculated noise levels at the nearest noise-sensitive locations to Proposed Development site do not exceed the recommended operational criterion adopted for the site. Notwithstanding this, best practice noise mitigation measures will form part of site management practices to ensure noise from on-site operations do not cause a noise nuisance at the nearest Noise Sensitive Receptors (NSR), the following measures are recommended:</p> <ul style="list-style-type: none"> ➤ Plant used onsite will be maintained in accordance with manufacturer specifications. In particular, exhaust silencers will be maintained in a satisfactory condition. ➤ Communication through plant horns will be prohibited. ➤ Unnecessary revving of truck engines will be prohibited. ➤ Site haul roads will be maintained in a satisfactory condition, and free from surface defects that may generate rattles in empty truck bodies. ➤ Machinery not in active use will be shut down. 		
Land, Soils and Geology				

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
23	EIAR Chapter 7	<p>The following mitigation measures are proposed:</p> <ul style="list-style-type: none"> ➤ All plant and machinery will be serviced before being mobilised to the site; ➤ Refuelling will be completed in a controlled manner using drip trays (bundled container trays) at all times; ➤ Drip-trays will be used for fixed or mobile plant in order to retain oil leaks and spills; ➤ Only designated trained operators will be authorised to refuel plant on site; ➤ Procedures and contingency plans will be set up to deal with emergency accidents and spills; and, ➤ An emergency spill kit with oil boom, absorbers etc. will be kept on site for use in the event of an accidental spillage. 		
		Landscape and Visual		
24	EIAR Chapter 11 Appendix 4-1 & 11-1: Landscape Impact Plan	<p>As per the Landscape Restoration Plan and the Landscape EIAR Chapter 11 the following has been recommended:</p> <ul style="list-style-type: none"> ➤ To include bare-rooted native planting species, double-staggered row, 1.20m height minimum in a continuous hedge. ➤ Hedge planting species to match originally existing. ➤ To include standard trees planted at 10m centres along the hedgegrow line. Bare rooted, 8-10 cm girth, 2.50-3.00 m height <p>To include the Following species:</p> <ul style="list-style-type: none"> ○ <i>Betula pendula</i> – 25% 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> ○ <i>Corylus avellana</i> – 30% ○ <i>Illex aquifolium</i> – 25% ○ <i>Taxus Baccata</i> – 20% <p>Additionally, the Landscape Impact Plan is proposing to:</p> <ul style="list-style-type: none"> ➤ Store topsoil in berms, no required place for stockpiling topsoil. ➤ The maximum slope allowed is – 1:2 		
Material Assets (including traffic)				
25	EIAR Chapter 13	<p>A detailed Traffic Management Plan (TMP), will be agreed with Galway County Councils Roads Section prior to construction works and operation commencing on site. The TMP will include the following:</p> <p>Identification of delivery routes – These routes will be agreed with Galway County Council and adhered to by all drivers.</p> <p>Additional measures - Various additional measures will be put in place in order to minimise the effects of the development traffic on the surrounding road network including sweeping / cleaning of local roads as required.</p> <p>Re-instatement works - All road surfaces and boundaries will be re-instated to pre-development condition, as agreed with the local authority engineers.</p>		
Population and Human Health				
26	EIAR Chapter 5	<ul style="list-style-type: none"> ➤ A site-specific Health and Safety Plan will be in place for the proposed facility. All site staff will be made aware of and adhere to the company Health and Safety Plan. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> Only appropriately qualified and trained personnel will be permitted to operate machinery onsite. Appropriate barriers and signage will be used. The Proposed Development site will not be accessible to members of the public. The site will also be secure to prevent the risk of trespass through signage and provision of barriers. 		
27	EIAR Chapter 5	<ul style="list-style-type: none"> All on-site plant and vehicles will be maintained in good operational order, thereby minimising any emissions that arise. Fixed plant will be turned off when not in use. When stationary, delivery and on-site vehicles will be required to turn off engines. Users of the site will be required to ensure that all delivery vehicles are suitably maintained to ensure that emissions of engine generated pollutants is kept to a minimum. The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. Water spraying of conveyors and stockpiles will be carried out when necessary to reduce the production of dust. Water sprays will be used as required during transfer and loading activities, during dry and/or windy conditions. Any hardstanding areas/site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff. The transport of material, which has significant potential to cause dust, will be undertaken in tarpaulin-covered vehicles. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> All plant and machinery will be maintained in good operational order while onsite. 		
Waste Management				
28	NIS Section 6.3.1.1.1	<ul style="list-style-type: none"> All waste will be collected in skips and the site will be kept tidy and free of debris at all times Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or recycling All construction waste materials will be stored within the confines of the site, prior to removal from the site to a permitted waste facility 		
29	EMP Section 3.2.2	<ul style="list-style-type: none"> Personnel may only clean down if they are familiar with the plant and rhizome material and can readily identify it. Decontamination will only occur within designated wash-down areas. Vehicles will be cleaned using stiff-haired brush and pressure washers, paying special attention to any areas that might retain rhizomes e.g., wheel treads and arches. All run-offs will be isolated and treated as contaminated material. This will be disposed of in already contaminated areas. 		
30	NIS 6.3.1.1.1	Waste generated during the operational phase of the Proposed Development will be managed in a designated area where the various waste components will be segregated into a number of waste categories in accordance with a general waste segregation policy and placed into individual bins. These materials will be removed by authorised waste collection contractors for recycling and recovery at various licensed facilities for recycling, recovery or disposal. Other waste mitigation measures which will be implemented at the site are as follows;		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> > All waste will be collected in skips and the site will be kept tidy and free of debris at all times. > Waste oils and hydraulic fluids will be collected in leak proof containers and removed from the site for disposal or recycling. It is also essential that all empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996. > All waste materials will be stored within the confines of the site, prior to removal from the site to a licensed waste facility. > No wastewater will be discharged on-site during the construction or operational phase of the Proposed Development. 		
Operational Phase				
Material Assets				
31	EIAR Chapter 4	<p>The Following mitigation measures will be employed at the site during its operation, to ensure traffic associated with the development does not negatively impact on the environment.</p> <ul style="list-style-type: none"> > Adequate on-site parking is provided for employees and visitor cars; > Provision of on-site speed restrictions; > Routing of vehicles with sensitive regard to local communities; > Ensuring that HGV are not overloaded; > Ensuring that all loads leaving the site are trimmed; and# <p>Checking public roads in the vicinity of the site for signs of spillages</p>		
Fuel and Oil Control				

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
32	EIAR Chapter 8	<ul style="list-style-type: none"> ➤ All site refuelling will be carried out in a designated refuelling area in the eastern section of the site. This designated area will be marked by signage; ➤ The refuelling area will be comprised of concrete hardstanding. A hydrocarbon/oil interceptor will capture and treat runoff from the refuelling area; ➤ All plant and machinery will be serviced before being mobilised to site, and regular leak inspections will be completed during the site operations; ➤ No plant maintenance will be completed on site, any broken-down plant will be removed from site to be fixed; ➤ An emergency spill kit with oil boom, absorbers etc. will be kept on-site for use in the event of an accidental spill; ➤ Drip-trays will be used for fixed or mobile plant such as pumps and generators in order to retain oil leaks and spills. The drip tray will have a holding capacity of 110% of the volume contained within the machine/generator; and, <p>Only designated trained and competent operatives will be authorised to refuel plant.</p>		
33	EMP Section 3.1.1.3	<ul style="list-style-type: none"> ➤ Minimal refuelling or maintenance of site vehicles or plant will take place on site. Off-site refuelling should occur at a controlled fuelling station; ➤ Refuelling or maintenance of machinery will not occur within 50m of any watercourse, spring, groundwater well or borehole. Dedicated refuelling areas will be used during the works where practicable; ➤ Fuel absorbent material and pads will be available in the event of any accidental spillages. Only designated trained and competent operatives will be authorised to refuel plant on site and no refuelling operations 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<p>shall be left unattended on site. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations.</p> <ul style="list-style-type: none"> Fuels volumes stored on site should be minimised. Any fuel storage areas will be bunded appropriately for the fuel storage volume for the time period of the operational phase and fitted with a drainage system and an appropriate oil interceptor. The plant used should be regularly inspected for leaks and fitness for purpose; <p>The emergency response plan for the site has been provided within this EMP (Section 4) which sets out the procedure for dealing with accidental spillages will be maintained throughout the operational phase of the Proposed Development.</p>		
34	EMP Section 3.2.3	No wastewater will be discharged on-site during the construction or operational phase of the Proposed Development.		
35	NIS Section 6.3.1.2.1	<ul style="list-style-type: none"> Fuel absorbent material and pads will be available in the event of any accidental spillages. Only designated trained and competent operatives will be authorised to refuel plant on site and no refuelling operations shall be left unattended on site. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations. . Fuels volumes stored on site should be minimised. Any fuel storage areas will be bunded appropriately for the fuel storage volume for the time period of the operational phase and fitted with a drainage system and an appropriate oil interceptor. 		
36	NIS Section 6.3.1.2.1 & EMP section 3.1.1.1	<ul style="list-style-type: none"> In the event of encountering groundwaters during excavation, the excavation will be de-watered using a pump equipped with a silt bag on the discharge pipe, if necessary, to capture any silty material prior to subsequent natural percolation to ground. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> ➤ All diesel or petrol pumps required onsite will be operated within bunded units ➤ As extraction works advance there may be a small requirement to collect and treat surface water within the site. This will be completed using perimeter swales at low points around the extraction areas, and if required water will be pumped from the swales into silt bags prior to overland discharge allowing water to percolate naturally to ground. Overland discharge, if required, will be located within the confines of the site boundary. 		
37	NIS Section 6.3.1.2.1	<ul style="list-style-type: none"> ➤ All site refuelling will be carried out in a designated refuelling area in the eastern section of the site. This designated area will be marked by signage; ➤ Refuelling or maintenance of machinery will not occur within 50m of any watercourse, spring, groundwater well or borehole. Dedicated refuelling areas will be used during the works where practicable; ➤ Fuel absorbent material and pads will be available in the event of any accidental spillages. Only designated trained and competent operatives will be authorised to refuel plant on site and no refuelling operations shall be left unattended on site. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations. ➤ Fuels volumes stored on site should be minimised. Any fuel storage areas will be bunded appropriately for the fuel storage volume for the time period of the operational phase and fitted with a drainage system and an appropriate oil interceptor. ➤ The plant used should be regularly inspected for leaks and fitness for purpose; ➤ The emergency response plan for the site has been provided within this EMP (Section 4) which sets out the procedure for dealing with accidental 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		spillages will be maintained throughout the operational phase of the Proposed Development.		
Air Quality and Dust Control				
38	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. ➤ The site access roads will be checked weekly for damage/potholes and repaired as necessary. ➤ Any hardstanding areas/site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff. ➤ The transport of material, which has significant potential to cause dust, will be undertaken in tarpaulin-covered vehicles. ➤ All vehicles required to pass through the wheel wash on exiting the site. ➤ Following reinstatement, the area will be reseeded to facilitate immediate revegetation of the site and prevent dust generation. ➤ All plant and machinery will be maintained in good operational order while onsite. ➤ All plant and shall be stored in the dedicated compound area. 		
39	NIS Section 6.3.1.2.1 & EMP section 3.1.1.1	<ul style="list-style-type: none"> ➤ Any requirement for temporary fills or stockpiles will be damped down or covered with polyethylene sheeting as required to avoid sediment release associated with heavy rainfall. ➤ Excavated spoil/overburden will be stockpiled and contained entirely within the confines of the site boundaries. It is anticipated that all excavated spoil will be used within the site for the construction of berms along the site boundary. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> > In the event of encountering groundwaters during excavation, the excavation will be de-watered using a pump equipped with a silt bag on the discharge pipe, if necessary, to capture any silty material prior to subsequent natural percolation to ground. > All diesel or petrol pumps required onsite will be operated within bunded units > As extraction works advance there may be a small requirement to collect and treat surface water within the site. This will be completed using perimeter swales at low points around the extraction areas, and if required water will be pumped from the swales into silt bags prior to overland discharge allowing water to percolate naturally to ground. Overland discharge, if required, will be located within the confines of the site boundary. > Discharge onto ground will be via a silt bag which will filter any remaining sediment from the pumped water. The entire discharge area from silt bags will be enclosed by a perimeter of silt fencing. > The design, installation and maintenance of an on-site drainage system can prevent sediment related pollution of nearby surface waters. 		
Waste Management				
40	EMP Section 3.2.3	<ul style="list-style-type: none"> > All waste will be collected in skips and the site will be kept tidy and free of debris at all times. > Waste oils and hydraulic fluids will be collected in leak proof containers and removed from the site for disposal or recycling. It is also essential that all empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996. > All waste materials will be stored within the confines of the site, prior to removal from the site to a licensed waste facility. 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<ul style="list-style-type: none"> > All waste will be collected in skips and the site will be kept tidy and free of debris at all times. > Waste oils and hydraulic fluids will be collected in leak proof containers and removed from the site for disposal or recycling. It is also essential that all empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996. > All waste materials will be stored within the confines of the site, prior to removal from the site to a licensed waste facility. > No wastewater will be discharged on-site during the construction or operational phase of the Proposed Development. 		
41	EIAR Chapter 7	<p>Site earthworks and aggregate extraction will result in a direct impact on the local geological environment, albeit this is an acceptable and unavoidable part of the proposed sand and gravel pit development. These impacts will be localised (i.e., only at the point of extraction) and will be mostly mitigated through the adoption of a suitable landscape and restoration plan which will be undertaken during the extraction phase and on completion of extraction.</p> <ul style="list-style-type: none"> > The stripped topsoil will be used to form berms along the site boundaries and for the ultimate restoration of the site. 		
42	EIAR Chapter 7	<ul style="list-style-type: none"> > Soil removed from extraction areas to be used to create a boundary berm around the site; > Where possible, the upper vegetative layer (where still present) will be stored with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation at the surface of the stored soil within the soil storage areas; > The spoil/fines from the processing will be in stored in cells constructed in in-situ sand and gravel deposits; and, 		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		➤ Re-seeding and spreading/planting will also be carried out in these areas.		
Decommissioning Phase				
43	ELAR Chapter 5	<p>The following measure will be enforced to ensure that dust and vehicle emission nuisance during the decommissioning phase beyond the site boundary is minimised.</p> <ul style="list-style-type: none"> ➤ All on-site plant and vehicles will be maintained in good operational order, thereby minimising any emissions that arise. ➤ Plant will be turned off when not in use. ➤ When stationary, on-site vehicles will be required to turn off engines. ➤ Users of the site will be required to ensure that all vehicles are suitably maintained to ensure that emissions of engine generated pollutants is kept to a minimum. ➤ The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. ➤ Water sprays will be used as required during transfer and loading activities, during dry and/or windy conditions. ➤ Water bowser movements will be carefully monitored, as the application of too much water may lead to increased runoff. ➤ The transport of material, which has significant potential to cause dust, will be undertaken in tarpaulin-covered vehicles. 		
44	ELAR Chapter 6	Once quarry operations have ceased within the proposed extraction area, all site infrastructure including the processing plant, wheelwash, weighbridge and site office would be disassembled/demolished and removed off-site for disposal/recycling and /or sale.		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		<p>All material intended for off-site disposal will be transported and disposed in accordance with the Waste Management Act 1996 and Environmental Protection Agency Act, 1992.</p> <p>As the Proposed Development will be completed over three phases, there is opportunity for site reinstatement during the lifespan of the quarry. Phase 1 of the Proposed Development will include the erection of processing plant, wheel washes, and site offices, and will remain until the quarry is decommissioned. Phase 2 will include the first extraction activities within the site and will first require the scraping of topsoil and removal of hedgerows to expose the sands below. The scraped topsoil will be stored as berms on the perimeter of the EIAR Site Boundary, as shown in the site restoration drawings in the planning pack of this application.</p> <p>Excluding Phase 1 (site enabling), on completion of a phase and prior to the commencement of the next, the topsoil removed to facilitate extraction will be respread over the worked area. This will ensure that the same seed mix is used during reinstatement and is of local provenance. In addition, the proposed hedgerow planting proposed for a phased area will be undertaken prior to the commencement of the next phase.</p> <p>The reseeded fields will then be subject to grassland management to ensure that the current habitat types are restored. This will involve annual removal of the sward, either by grazing (preferably by sheep) or hay harvest and ceasing any application of fertiliser or chemicals onto the fields.</p> <p>Provided that the above is carried out and with time, this reinstatement of the site will result in the reestablishment of dry calcareous neutral grassland, in addition to the 5.5 ha managed off site during operation. In addition, as per</p>		

RECEIVED: 09/01/2024

Mitigation Measure no.	Reference	Mitigation Measure	Audit Result	Action Required
		the site reinstatement drawings, there will approximately 830m of hedgerow planted within the boundary of the site, negating the loss of this habitat with added compensation of approximately 17%.		
45	EIAR Chapter 7	<p>Site earthworks and aggregate extraction will result in a direct impact on the local geological environment, albeit this is an acceptable and unavoidable part of the proposed sand and gravel pit development. These impacts will be localised (i.e., only at the point of extraction) and will be mostly mitigated through the adoption of a suitable landscape and restoration plan which will be undertaken during the extraction phase and on completion of extraction.</p> <p>The stripped topsoil will be used to form berms along the site boundaries and for the ultimate restoration of the site.</p>		
46	EIAR Chapter 7	Excavation of soil and subsoil deposits will be required for site levelling and for the installation of infrastructure and foundations for the Proposed Development. All excavated overburden material will be reused on site either for infilling or for landscaping.		
47	EIAR Chapter 7	Mitigation will include a restoration plan which will return the site to grassland by spreading the topsoil/overburden that was previously stripped and stored at the site.		

RECEIVED: 09/01/2024

16.3

EIAR Monitoring Measures

Table 16-2 Monitoring Measures

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
MX1	EIAR Chapter 14	<p>A detailed Environmental Management Plan (EMP) will be prepared prior to the commencement of any works. The EMP will be a live document maintained by the contractor that will work to ensure that potential risks of major accident and/or disaster are identified, avoided and mitigated, as necessary. Refer to Appendix 4-2 for an outline EMP that sets out the minimum standards to be employed by the contractor.</p> <p>The operator of the Proposed Development will continue to assess the risk of major accidents and/or disasters on site on an on-going basis during operation.</p> <p>The maintenance programme, record of reported incidents, as well as general site activities will be monitored on an on-going basis to ensure risk of major accidents does not increase over time.</p>			
MX2	EMP Section 4.1	<ul style="list-style-type: none"> ➤ Undertake inspections and reviews to ensure the works are carried out in compliance with the EMP. ➤ Monitor the implementation of the EMP, particularly all proposed/required Environmental Monitoring. ➤ Ensure proper mitigation measures are initiated and adhered to during both the construction and operational phase. 			

RECEIVED: 09/01/2024

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
		Support the investigation of incidents of significant, potential or actual environmental damage, and ensure corrective actions are carried out, recommend means to prevent recurrence and communicate incident findings to relevant parties.			
MX3	EIAR Chapter 4 & 5	The hardstanding/roads adjacent the site will continue to be regularly inspected by the Site Manager for cleanliness and cleaned as necessary.			
MX4	EIAR Chapter 4 & 5	<ul style="list-style-type: none"> ➤ Regular maintenance of items of plant to ensure that they are operating efficiently t ➤ Regular maintenance of haul routes to avoid uneven surfaces; 			
MX5	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ Any vehicles or plant brought onsite during the operational phase will be maintained in good operational order that comply with the Road Traffic Acts 1961 as amended, thereby minimising any emissions that arise; <p>Regular servicing and maintenance of back-up generators and replacement with Best Available Technologies.</p>			
MX6	EIAR Chapter 5	<ul style="list-style-type: none"> ➤ Plant used onsite will be maintained in accordance with manufacturer specifications. In particular, exhaust silencers will be maintained in a satisfactory condition. ➤ Site haul roads will be maintained in a satisfactory condition, and free from surface defects that may generate rattles in empty truck bodies. 			

RECEIVED: 09/01/2024

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
Air Quality and Dust Control					
MX7	EIAR Chapter 9	Dust monitoring will be conducted using Bergerhoff Gauges. It is proposed to install a total of two dust gauges within the confines of the site boundary. One of these dust gauges will be installed at the western end of the site and the other will be installed near the eastern boundary, adjacent to the L2232 road. See Figure 10-1 of Chapter 9 of the EIAR which shows the locations where the dust gauges will be installed. At the end of each month, the collection container shall be taken for analysis by an appropriately certified laboratory in order to determine the rate of dust deposition.			
MX8	EIAR Chapter 9	<ul style="list-style-type: none"> ➤ When necessary, sections of the site will be dampened down with water. ➤ The roads adjacent to the site will be regularly inspected by the Site Manager for cleanliness and cleaned as necessary. ➤ Water bowser movements will be carefully monitored to avoid, insofar as reasonably possible, increased runoff. <p>Users of the site will be required to ensure that all plant and vehicles are suitably maintained to ensure that emissions of engine generated pollutants is kept to a minimum.</p>			
MX9	EMP Section 3.1.2	Construction dust can be generated from many on-site activities such as excavation and backfilling. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e., soil, sand, etc and the weather. In addition, dust dispersion is influenced by external			

RECEIVED: 09/01/2024

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
		<p>factors such as wind speed and direction and/or, periods of dry weather. Traffic movements also have the potential to generate dust as trucks and excavators travel along the designated haul routes within the confines of the site. The measures below will also prevent construction debris arising on the public road network.</p> <ul style="list-style-type: none"> Any site roads/site entrances with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions. The designated public roads outside the site and along the main transport routes to the site will be regularly inspected by Site Management for cleanliness and cleaned as necessary. Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind. Water misting will be utilised on-site as required to mitigate dust in dry weather conditions. The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary. Daily inspection of the site to examine dust measures and their effectiveness. 			
Surface Water Management					
MX10	EIAR Chapter 7 & 8 and EMP	<ul style="list-style-type: none"> All plant and machinery will be serviced before being mobilised to site, and regular leak inspections will be completed during the site operations 			

RECEIVED: 09/01/2024

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
	section 3.1.1.3				
Material Assets					
MX11	EIAR Chapter 12	<ul style="list-style-type: none"> The appointed contractor will put in place measures to keep public roads free of detritus and debris. This will include undertaking regular road sweeping by a mechanical sweeper and the provision of wheel wash facilities on the site. 			
MX12	EMP Section 3.1.4	<p>The proposed traffic management measures to be adopted are outlined in detail in Section 14 of the EIAR. Some of these measures are summarised below. Please note that this is not an exhaustive list, and it will be updated accordingly in consultation with the local authority.</p> <ul style="list-style-type: none"> Warning signs / Advanced warning signs will be installed at appropriate locations in advance of the site access locations. Vehicles which will be entering the site will be instructed to use only the approved and agreed means of access; and movement of site vehicles will be restricted to these designated routes. Appropriate vehicles will be used to minimise environmental impacts from transporting material, for example the use of dust covers on HGVs carrying dust producing material. Speed limits of vehicles to be managed by appropriate signage, to promote low vehicular speeds. 			

RECEIVED: 09/01/2024

Ref. No.	Reference Location	Monitoring Measure	Frequency	Reporting Period	Responsibility
		<p>➤ Parking of site vehicles will be managed and will not be permitted on public road, unless proposed within a designated area that is subject to traffic management measures and agreed with Galway County Council.</p> <p>➤ All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. All scheduled maintenance will not be carried out on the public highway.</p> <p>The site for the Proposed Development will be accessed via a new entrance on to the adjacent public road at the eastern boundary of the site.</p>			