2129 Lanesborough Outdoor Theatre

Commons North, Co. Longford

OUTLINE CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

Request for Further Information

DE BLACAM AND MEAGHER

August 2025

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Summary

This outline Construction and Environmental Management Plan (CEMP) has been developed to detail the commitments and mitigation measures to be implemented by Longford County Council and their appointed contractors for the construction of a proposed outdoor theatre on lands at Lanesborough, North Commons, Co. Longford. This outline CEMP is being submitted in tandem and should be read in conjunction with the Appropriate Assessment Screening Report & Natura Impact Statement (NIS) for the proposed development.

The purpose of the CEMP is to provide details of the project including phasing, sensitive receptors, and details on how the proposed project is intending to use a comprehensive and integrated approach to protecting the Rathcline Semi-Native Woodland and Recreation Area and its environs other sensitive environmental receptors including Lough Ree. The CEMP also details the specific requirements that need to be addressed during project stages as well as including the related roles and responsibilities of individuals involved in the project.

1. Introduction

1.1 Outline of the Construction and Environmental Management Plan (CEMP)

De Blacam and Meagher has been commissioned by Longford County Council to prepare an outline Construction Environmental Management Plan (CEMP) for the proposed outdoor theatre at the disused quarry in Lanesborough, North Commons, Co Longford. The purpose of the CEMP is to provide details of the project, sensitive receptors and how the proposed project is intending to use a comprehensive and integrated approach to protecting Rathcline Semi-Native Woodland and Recreation Area and its environs other sensitive environmental receptors including Lough Ree. The following CEMP outlines the potential impacts of the development, details the sensitive receptors, environmental controls and the mitigation measures that will be implemented to minimise impacts. The CEMP also details the specific requirements that need to be addressed during project stages which also includes the related roles and responsibilities of individuals involved in the project. This CEMP is subject to planning permission being granted for the development as per the drawings submitted. The CEMP is a live document subject to change based on the following:

- a. Comments from An Bord Pleanála,
- b. Final planning permission granted and conditions,
- c. Compliance requirements of Longford County Council,
- d. Concerns raised by residents affected by the works.

The final CEMP prepared for the development will be submitted prior to commencement of the relevant phase on site and will be subject to periodic review as part of the management of the construction process.

1.2 Structure of the CEMP

This CEMP is based on measures to ensure legal compliance and established good management practice onsite and includes the following sections:

- 1. Introduction
- 2. Project Description
- 3. Proposed Construction Methods
- 4. Environmental Management
- 5. Waste Management
- 6. Traffic Management
- 7. Sensitive Receptors
- 8. Analysis of the Potential Impacts
- 9. Mitigation Measures & Monitoring
- 10. Site Information
- 11. Emergency Procedures
- 12. Invasive Species
- 13. Relevant Legislation
- 14. Monitoring
- 15. Conclusions

2. Communication

Upon planning approval, the applicants would appoint a construction works contractor to the proposed development. This CEMP would be communicated to all site personnel during site inductions and briefings. All site personnel would be responsible for undertaking their work in an environmentally sustainable manner and would be encouraged to provide feedback and comments on environmental performance at the site and suggestions for improvement.

The construction works contractor would appoint a Project Manager to the proposed development. Any environmental issues, accidents or incidents would be reported to the Project Manager as soon as possible, who in turn would inform the applicants.

3. Project Description

3.1 Project Outline and Site Context

The proposed development site has an area of approximately 6200m². It's located on the outskirts of Lanesborough, within an old quarry site in an area of mixed woodland on the shore of Lough Ree. The surrounding landscape to the north and west is a mixture of semi-rural, residential, and agricultural land; to the south lies an area of deciduous woodland composed mostly of ash and hazel.

- a) The development will consist of:
- Permanent tiered seating (500 seats)
- Stage with canvas canopy and steel support structure.
- Temporary public 'porta-loos' including 1 no. accessible 'porta-loo'.
- 1 no. 20 foot container (14 sqm) modified for equipment storage.
- 1 no. 20 foot container (14 sqm) modified to contain function services (temporary bar, first aid).
- 1 no. Sound booth (7 sqm).
- Site lighting.
- Associated landscaping and ancillary site works.
- b) The proposed development is for an outdoor concert venue set in the former lime quarry (currently a council depot) in Commons North, Lanesborough, Co. Longford. It will comprise tiered seating (500 seats) in a landscaped embankment, with a stage with a canvas / steel canopy. The existing stone quarry face forms the backdrop to the stage. Site area: 6,180 sqm;
- c) Ancillary accommodation (temporary toilets, bar, first aid, storage) are provided to service events;
- d) Car parking is provided in the existing public car park adjacent to Lanesborough Bridge, from which existing pedestrian footpaths provide access to the venue site;
- e) All landscaping including planting to be sensitive to existing trees and landscape, while integrating Landscape Architect's proposal.
- f) Provision of 1no. ESB mini pillar.
- g) Documents to be familiar with when reading this document:
 - i) Appropriate Assessment Screening Report & Natura Impact Statement and Report on Supporting Ecological Surveys - undertaken by CAAS

- ii) Planning Stage Noise Assessment and Request For Further Information, Noise Impact Assessment undertaken by Allegro Acoustics
- iii) Hydrological Investigation undertaken by AquaGeo Services
- iv) Commercial Plan undertaken by Venture International Ltd.
- v) Level1/2 Site Specific Flood Risk Assessment undertaken by Fearon O'Neill Rooney Consulting Engineers



Figure 1: Site location at Rathcline Semi-Native Woodland and Recreation Area

3.2 Drainage

At present the subject lands does not have any engineered drainage system in place. A hydrological report was made by Aqua Geo Services which states:

"There will be no direct discharge from the proposed site development to Lough Ree.

Portaloos will be brought on site during events and removed off site after events. There will

therefore be no requirement for connection to a sewer line or for an existing wastewater treatment system. The car parking will be provided in the existing public car park adjacent to Lanesborough bridge, from which existing pedestrian footpaths provide access to the venue site and the Commons North Woodland trail. Therefore, there will be no risk of release of petroleum-based products during the operational phase. Surface water runoff generated on site will discharge into the landscaped ground. It is understood that gravel material will be used, which should enable good percolation down to the quarry floor as is currently the case pre-development."

"The assessment concludes that:

- The proposed development will be situated within the footprint of a disused lime quarry underlain by the Regionally Important Karstified Aquifer (Rkc). The quarry floor lies above the average water level of Lough Ree but within the historical maximum recorded levels and is confirmed by predictive flood mapping to be at risk of inundation during medium- (1% AEP) and low-probability (0.1% AEP) flood events, corresponding to Flood Zone A.
- There is no direct hydrological connection between the quarry floor and the adjacent lake habitats. However, there is a clear indirect hydraulic connection via infiltration to the karst aquifer beneath the site, which discharges to Lough Ree.
- *Under ext*reme rainfall events, rising groundwater levels within the karstified bedrock could result in partial inundation or full inundation of the quarry floor, temporarily elevating the potential for indirect mobilisation of pollutants toward Lough Ree and associated limestone habitats during the construction phase.
- Flood risk mapping, the detailed Site-Specific Flood Risk Assessment, and the classification of the site within Flood Zone A confirm the requirement for robust design, operational safeguards, and real-time monitoring of groundwater levels to manage this risk.
- No direct discharge of surface water or foul effluent is proposed during the operational phase.
- Potential pollutant linkages during construction were assessed to pose low to high temporary risks depending on the nature of the contaminant and the pathway involved.
- Finally, mitigation measures and an early warning groundwater monitoring system, including a defined High Water Alert Level of 36.5m a.OD, have been incorporated into the construction design and management. These measures will provide additional protection to the receiving soil and water environments and ensure that indirect pathways to Lough Ree are effectively controlled. However, the protection of downstream European sites is not reliant on these measures alone, as no direct hydrological connection has been identified."
- Hydrological Survey, Aqua Geo Services

More information can be found in the Hydrological Survey Report by Aqua Geo Services.

3.3 Flood Risk Assessment

The Flood Risk Assessment was carried out by Fearon O'Neill Rooney Consulting Engineers. They stated that:

"Although the site lies within Flood Zone A, the proposed outdoor theatre is consistent with local planning objectives, falls within the 'Less Vulnerable' category of land use, and will not significantly increase flood risk on or off site. It meets all three criteria of the Development Management Justification Test and should therefore be deemed appropriate in accordance with national flood risk policy.

Furthermore, the development will be designed to ensure that it does not exacerbate flooding risk downstream. Surface water runoff from the site will be managed within the site boundaries, with no additional discharge to existing watercourses. Additionally, any potential floodwater displacement resulting from minor land-forming or the installation of site infrastructure will have a negligible volumetric impact when compared with the capacity of Lough Ree. As such, the development is not expected to give rise to any negative or adverse effects on downstream flood risk or local hydrological conditions.

Flood risk management will be reviewed at detailed design stages to ensure the best practice drainage measures are implemented throughout the lifetime of the development.

It is also worth noting that, given its nature as an open-air venue, the theatre is unlikely to be in use during periods of adverse weather—particularly in the event of heavy rainfall or flooding. In this way, the venue's very function of the venue acts as its own risk mitigation.

There is a flood alert system in place for Lough Ree and the River Shannon catchment, although it's not a real-time public alarm system in the conventional sense (like sirens or SMS alerts). Instead, it typically involves forecasts and alerts:

For major flood events, OPW and Met Éireann issue flood warnings via National and local media, Local authorities (e.g., Longford County Council) and alerts to emergency services and affected stakeholders. For the proposed development,

It must be considered to install a private water-level monitoring system on the site (e.g., remote sensors or radar gauges). These are to be linked to automatic alerts by SMS or email for site managers in the event of an unexpected rising of water levels during an event." – Flood Risk Assessment, Fearon O Neill Rooney Consulting Engineers

More information can be found in the Flood Risk Assessment by Fearon O'Neill Rooney Consulting Engineers.

3.4 Landscape

The landscape proposals for the site are intended to contribute towards a unique sense of place, a site specific design proposal generated from existing landscape elements and context, a high quality environment, a development that acknowledges the local landscape character and integrates well into the receiving environment, a development that promotes beneficial effects on biodiversity by providing new, habitat.

4. Proposed Construction Methods

A Construction Management Plan (CMP) for the proposed site will be prepared by the successful tenderer and it will outline how the proposed works will be managed for the duration of works on site. The following will act as a guide for consideration based on the research carried out by deBlacam and Meagher Architects, CAAS, Allegro Acoustics, Aqua Geo Services and Fearon O'Neill Rooney Consulting Engineers and all other consultants involved in the drafting of this document.

4.1 Site Establishment

The contractor will provide all necessary accommodation, material handling and secure storage for its operations. The facilities to be provided and maintained by the contractor will include:

- Construction plant.
- Hoisting equipment and cranes.
- Scaffolding, platforms, access ladders, barriers, handrails.
- Barricades and hoardings.
- Temporary driveways, road crossovers and construction zone.
- 24/7 emergency vehicle access to site during working hours.
- On-site hardstand areas for vehicle loading and unloading.
- Storage sheds and compounds.
- Rubbish sorting areas.
- Site amenities with all required equipment and facilities.
- Construction worker accommodation.
- First aid facilities.
- Site administration accommodation.
- If necessary, a compound zone will be agreed with the contractor (cannot be within SAC or SPA zones).

Construction plant and site amenities will comply with the requirements of all relevant authorities and be wholly contained within the hoarded site. All construction plant and equipment will be progressively removed when no longer required. First Aid facilities for the use of all construction staff in the form of a fully provisioned first aid area within the site office with lifesaving and safety equipment as required by relevant statues, authorities and awards will be maintained at all times by the contractor. The contractor will obtain all required permits, pay the applicable fees, and comply with all conditions.

4.2 Construction Access and Phasing

Access to the development site for construction traffic shall be from Main Street (Between St. Mary's Town Hall and Lough Ree Distillery).

All vehicular access routes during the construction phase will be laid out in accordance with the requirements of Chapter 8 of the Traffic Signs Manual. Security personnel will be present at the site entrance/exit to ensure that all traffic exiting the construction site does so safely. A wheel wash will be installed at the exit from the site, to prevent excess dirt being carried out into the public road. If necessary, a road sweeper will be used to keep the public road around the site clean.

4.3 Hoarding and Fences

Prevention of unauthorised access to the site is a very high priority and will be vigorously managed throughout the construction period. When the contractor is appointed, the site will be secured with site barriers and hoardings

in accordance with the final construction management plan. Any hoardings and signboards to the perimeter of the site will comply with the requirements of the relevant authorities and the relevant Health and Safety Acts. The contractor will be required to erect a single project signboard to the hoarding at the main entrance point to identify the site.

4.4 Services Relocations and Temporary Protection of Public Domain

Prior to any works commencing on site, dilapidation reports will be carried out for footpaths, kerbs, road pavements and utility infrastructure features of the main access routes in the immediate vicinity of the site. All temporary protection is to be installed and maintained during the duration of the works until they are no longer required.

4.5 Major Plant and Equipment

Plant and equipment anticipated to be used during the entire works are:

- Articulated and rigid trucks.
- Rigs, bulldozers, excavators, backhoes, with ancillary equipment (rock hammers or saws).
- Mobile cranes.
- · Concrete delivery trucks.
- · Concrete pumps.
- Man, and material hoists;
- · Scissor, boom and forklifts.

All plant and equipment will be operated by experienced and qualified personnel with the appropriate registrations.

4.6 Site Security

Access to site will be controlled by means of an electronic access control system and camera remote monitoring system for out of hours use. During working hours, a gateman will control traffic movements and deliveries.

All personnel working on site will be required to have a valid Safe Pass card.

4.7 Material Hoisting and Movement Throughout the Site

It is envisaged that the periodic use of mobile cranes will be sufficient for all construction works on site. Mobile crane visits will be coordinated with the other site activities to ensure that all risks are correctly assessed and guarded against. A detailed crane analysis will be prepared for verification of the safe load parameters. No loads will be lifted over the public domain or adjacent properties. Hoists and teleporters may also be used within the site and around its perimeter as required during the project, to facilitate material and waste movements into and out of the site.

4.8 Deliveries and Storage Facilities

All deliveries to site will be scheduled to ensure their timely arrival and avoid the need for storing large quantities of materials on site. Deliveries will be scheduled outside of rush hour traffic to avoid disturbance to pedestrian and vehicular traffic in the vicinity of the site.

4.9 Site Accommodation

On-site facilities shall include:

A materials and equipment storage area.

- A site office.
- Staff welfare facilities (e.g. toilets, drying room, canteen, etc.).

Electricity will be provided to the site via national grid.

There is no possibility to connect to public watermain for water or public drainage for foul connection on site. Water will have to be brought onto site from elsewhere. Foul waste will have to be accommodated on site and removed off site. Water run off contaminated with cement will also have to be treated on site and removed. See Hydrological Report (IV.1.1 Construction Phase) for further details.

4.10Site Parking

Access to site will be made from Lanesborough, Main Street between St. Mary's Townhall and Lough Ree distillery. There are 91 carparking spaces in the main car park (closest to Main Street), 3 of which are disabled spaces. There is also 1 space dedicated to electric car-charging. There are an additional 20 spaces in a smaller carpark closer to the site. The total carparking spaces are 111 spaces. Vehicle parking for construction personnel shall be accommodated at the existing carpark. To the extent possible, personnel will also be encouraged to use public transport, and information on local transportation will be published on site.

4.11Site Working Hours

Subject to the agreement of the Planning Authority, the following site operation hours are proposed:

- Monday to Friday: 08:00 to 20:00.
- Saturdays: 08:00 to 16:00.
- Sundays & Bank Holidays: Works not permitted.

It may be necessary for some construction operations to be undertaken outside these times, for example: electrical connections; concrete finishing and fit-out works; etc. There may also be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times. These should be done in consultation with the local authorities.

4.12Health and Safety

All activities undertaken at the proposed development site during the construction phase shall be in accordance with the requirements of the Safety, Health and Welfare at Work Act 2005, as amended, and the Safety, Health and Welfare at Work (Construction) Regulations, 2013. As required by the 2013 regulations, a Health and Safety Plan would be prepared by the construction works contractor, which would address health and safety issues from the design stages through to the completion of construction works. This plan would be updated and reviewed as required as the proposed development progresses.

Prior to works commencing onsite, all site personnel, including sub-contractors, would receive induction training that would incorporate health and safety requirements and good practice. Site induction would be mandatory for all employees, sub-contractors and visitors to the development site. Specific training would be provided, where necessary.

All construction personnel, contractors and visitors to the site would wear the following appropriate Personnel Protective Equipment as a minimum at all times:

- Safety helmet;
- · Hi-visibility clothing (coat or vest);
- · Safety boots;

• Eye protection where identified for specific activities.

Regular site safety audits would be undertaken throughout the construction phase to ensure the rules and regulations established for the site are complied with at all times.

4.13 Construction Signage and Labelling

Environmental signage and labelling would be used to inform site personnel of environmental requirements and restrictions with regards construction activities, in addition to promoting environmental good practice at the development site. The construction works contractor would erect the appropriate signage and label all relevant areas and receptacles. Examples would include designated storage areas for potentially polluting materials and waste and site environmental rules.

4.14Construction Method Statement

Prior to works commencing, the construction works contractor would prepare and provide to the clients a detailed Construction Method Statement, which would address all construction works required for the proposed development. The construction works contractor would maintain a register of all method statements for the project, in addition to a register of all site personnel trained on the method statements. Mitigation methods are listed in the following chapter.

5. Environmental Management

The contractor will establish guidelines and controls for all activities that may impact on the surrounding environment for the duration of the works which include: air, water, land, natural resources, flora, fauna, humans, and their interrelation.

The project is to be developed to enable to all personnel with the means to understand their responsibilities and to meet the contractor's statutory, contractual, and procedural obligations relating to environmental management.

For each activity, the environmental aspects and associated actual and potential impacts are to be identified as they relate to the following environmental elements:

- · Emissions to air.
- Releases to water.
- Releases to land.
- Use of raw materials & natural resources.
- Use of energy.
- Waste and by-products.
- · Community & neighbours.
- Flora & fauna.
- Heritage & cultural.

5.1 Materials and Decontamination

Excavation works will be informed by the results of Site Investigation reports. Any hazardous or contaminated materials encountered during the works shall be treated onsite to the extent possible, and safely removed and disposed of by a licenced contractor in accordance with the applicable legislation and regulations.

5.2 Excavated Materials

This section should be read in conjunction with the 5.7 Migrating Dust and Dirt Pollution. The following controls for the handling and storage of excavated materials would be implemented throughout the construction phase:

- Spoil would only be stored at the proposed development site temporarily. A designated spoil area would be established by the construction works contractor away from Lough Ree.
- Spoil would be covered or alternatively, graded, to avoid ponding and water saturation, in addition to minimising exposure to wind;
- Where required, silt fencing would be placed around spoil areas until such time as the excavated soil
 has been used in re-instatement works or removed offsite by a licenced waste contractor;
- Spoil would be used in the reinstatement process where possible;
- Reinstatement would be undertaken as soon as possible after excavation and earth-moving works.
- Excavations for foundations are expected to be shallow therefore there should be no standing water and will not necessitate pumping.

5.3 Storm Water and Waste Management

Storm water and wastewater management will be constructed as per the conditions of the approved planning permission. The purpose of these procedures is to ensure that storm water and wastewater runoff is managed and that there is no off-site environment impact caused by overland storm water flows. The project environmental management plan will be developed in detail to include:

- Silt control on the roads.
- Discharge water from dewatering systems.
- Diversion of clean water.
- Treatment and disposal of wastewater from general clean-up of tools and equipment.
- Spills control.
- A buffer zone of at least 20m separating working machinery from watercourses.
- A prohibition on machinery entering watercourses.
- Refuelling of machinery off-site or at a designated bunded refuelling area.
- Silt trapping or oil interception (as per attached drawing @A1, shown on figure 2 for ease of reference).

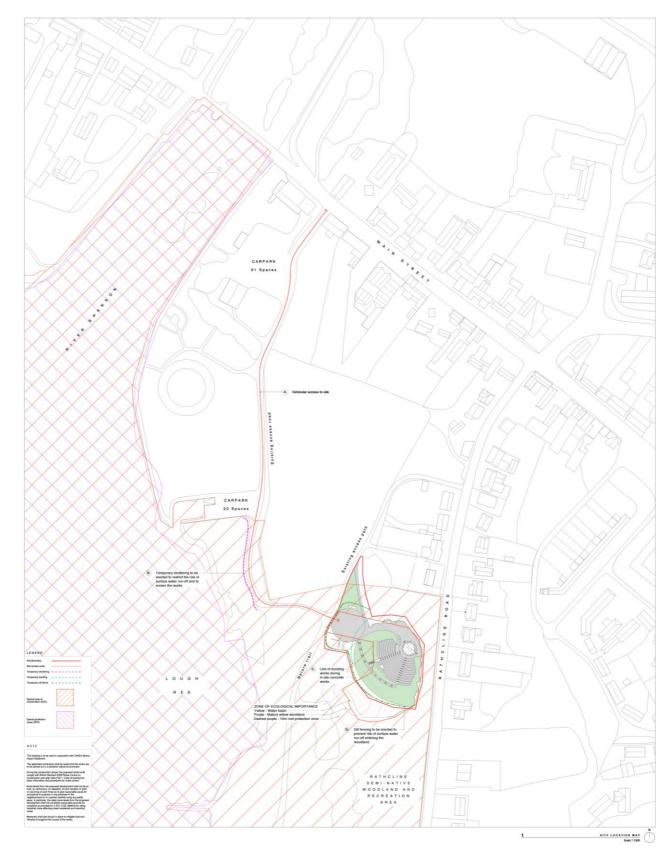


Figure 2: Construction Management drawing

More details as follows:

5.3.1 Silt Fencing

Silt fencing will be installed as part of mitigation measures to ensure any runoff during construction activities near the SAC does not reach drains / watercourses. The locations which require silt fences to be installed are displayed in the attached drawing @A1, (shown on figure 2 for ease of reference). The silt fences will have the following design features:

- The geotextile fabric will be entrenched at least 100mm into the ground with the ends upturned inward towards the works.
- The fence posts will have a maximum spacing of 2m to prevent sag on the fence.
- The geotextile fabric will be anchored to the fence posts as opposed to wrapped.

5.3.2 Soil Management

- To avoid excessive silt runoff, site clearance is not to be undertaken during wet conditions, when rainfall
 of more than 0.5 mm/hour is forecast within the next 24 hours or rainfall of more than 3mm/hour is
 forecast within the next five days in the works area. Silt fencing will be installed to retain eroded
 sediments. Catch nets will be used where relevant.
- Soil cleared from the site and all materials associated with the building process are to be stored outside
 the groundwater flood zone in designated storage areas. The flood zone will be delineated on the works
 areas. No soil storing will be allowed within 30 m of the open water or >50 metres from the SAC
 boundary, which is in line with the Inland Fisheries Ireland guidelines.
- Although there is no evidence of historical contamination in the Proposed Development area, all excavated materials will be visually assessed for signs of possible contamination such as staining or strong odours. Should any unusual staining or odour be noticed, samples of this soil will be gathered by the site manager and analysed for the presence of possible contaminants in order to ensure that historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be disposed of by a licensed waste disposal contractor.
- Stockpiles have the potential to cause negative impacts on air and water quality. The effects of soil
 stripping and stockpiling will be mitigated against through the implementation of appropriate earthworks
 handling protocol during construction. Overburden material will be protected from exposure to wind by
 storing the material in sheltered parts of the site.

5.3.3 Surface Water

- As recommended in Inland Fisheries Ireland (2016) "Guidelines on protection of fisheries during construction works in and adjacent to waters" there will be no direct discharges to surface waters.
- All preliminary site works and construction stage surface water run-off will be managed as part of the
 existing approved surface water management system with integrated hydrocarbon and silt removal. Care
 will be taken to ensure that exposed soil surfaces are stable to minimise erosion. All exposed soil
 surfaces will be within the work areas which limits the potential for any offsite impacts.
- Any minor ingress of groundwater and collected rainfall in the excavation will be pumped out during construction.
- There shall not be discharge of silty water from the works to any watercourse, will any discharge of
 construction water be required during the construction phase, discharge will be to foul sewer following
 agreement with the Council/ Irish Water.
- There will be no discharge of effluent to groundwater during the construction phase. All wastewater from the construction facilities will be stored for removal off site for disposal and treatment.
- The contractor shall be obliged to ensure no deleterious discharges are released from the sites to Lough Ree during excavation, de-watering, or erecting activities. Throughout the period of works the contractor

shall also take account of relevant legislation and best practice guidance including but not limited to the following: C532 Control of water pollution from construction sites: guidance for consultants and contractors;

- C648 Control of water pollution from linear construction projects;
- SP156 Control of water pollution from construction sites guide to good practice;
- NRA's 'Guidelines for the Crossing of Watercourses during Construction of National Road Schemes (NRA, 2005);
- The Eastern Regional Fisheries Board guidance document 'Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites' (Murphy, 2004);
 and
- The Southern Regional Fisheries Board guidance document 'Maintenance and protection of the inland fisheries resource during road construction and improvement works' (Kilfeather, 2007).
- In order to minimise the risk of contamination, any stockpiled material designated for removal will be removed off-site as soon as possible. Surface water drain gratings in areas near or close to where stockpiles are located will be covered by appropriate durable polyurethane covers or similar. Active treatment systems such as siltbusters or similar may will be adopted, depending on turbidity levels and discharge limits.

5.3.4 Flood Risk Management

- Schedule construction works predominantly during periods of low water levels on Lough Ree (May to September).
- Avoid excavation and construction activities during or immediately after severe rainfall events to minimise flood risk and potential water ingress into the quarry floor.
- Maintain regular monitoring of groundwater and sump water levels during construction to provide early warning of elevated groundwater conditions.

5.3.5 Storage of Pollutants

- All oils, solvents and paints used during construction will be stored within temporary bunded areas.
- Oil and fuel storage tanks shall be stored in designated areas, and these areas shall be bunded to a
 volume of 110% of the capacity of the largest tank/container within the bunded area(s) (plus an
 allowance of 30 mm for rainwater ingress). Drainage from the bunded area(s) shall be diverted for
 collection and safe disposal.
- Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area (where possible) off the site.

5.3.6 Spillage

- In the event of a spillage, drainage from bunded areas shall be inspected and diverted for collection and safe disposal if required. The integrity and water tightness of all bunding structures shall be tested and demonstrated. All fuel oil areas will have appropriate spill aprons.
- With respect to portable equipment containing fuel oil, drip trays or approved equipment shall be used. Adequate spill clean-up materials will be available on site at all times.
- Refuelling of construction vehicles, and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area (or off site) which will be away from surface water gullies or drains. An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored in this area and made available. In the event of a machine requiring refuelling outside of this area, fuel will be transported in a mobile double-skinned tank. All relevant personnel will be fully trained in the use of this equipment.

Guidelines such as 'Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors' (CIRIA 532, 2001) and other CIRIA guidelines regarding good practice (CIRIA 692, 2011; CIRIA 715, 2012) will be complied with.

- In the case of drummed fuel or other chemicals which may be used during construction, containers will be stored in a dedicated internally bunded chemical storage cabinet and labelled clearly to allow appropriate remedial action in the event of a spillage.
- Emergency response procedures will be outlined in the detailed CEMP. All personnel working on the site will be suitably trained in the implementation of the procedures.
- All vehicles will be regularly checked for oil leaks, and ruptured hose pipes.

5.3.7 Management of Cementitious Material

- A suitable risk assessment for wet concreting will be completed prior to works being carried out.
- · No batching of wet-cement products will occur on site;
- Ready-mixed concrete will be delivered to the excavation site. Where possible, emplacement of pre-cast elements, will take place. Where possible pre-cast elements will be used;
- Shuttering and formwork shall be checked for gaps by the EnCoW in advance of pouring. Where
 necessary, polyurethane foam may be used to seal shuttering joints to prevent concrete leaking.
- Wash-down of concrete contaminated equipment will not take place within the site.
- Concrete trucks will be brought as close as possible to the excavation to pour directly into the
 excavation. If this is not possible, concrete will be transported in dumpers fitted with concrete chutes;
- 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 construction phase drainage system or directly to any artificial drain or watercourse will be allowed;
- Weather forecasting will be used 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;
- The small volume of water that will be generated from washing of the concrete lorry's chute will be directed into a concrete washout area

5.3.8 Operational Controls

- Ensure portable sanitation units are removed promptly after each event and maintained in good condition
- Retain permeable gravel surfacing to maintain infiltration capacity and reduce overland flow.

5.3.9 Water Quality Monitoring

- Baseline groundwater quality sampling shall be conducted prior to commencement of works, and
 periodic sampling shall be undertaken during construction phase to confirm that no adverse impacts on
 groundwater or indirectly connected habitats are occurring.
- Weekly checks will be carried out to ensure surface water drains are not blocked by silt, or other items, and that all storage is located at least 30 m from surface water receptors or >50 metres from the SAC boundary.
- Regular inspection of surface water run-off and any sediment control measures (e.g. silt traps) will be carried out during the construction phase.
- Regular auditing of construction / mitigation measures will be undertaken, e.g. concrete pouring,
 refuelling in designated areas, etc. A log the regular inspections will be maintained, and any significant

blockage or spill incidents will be recorded for root cause investigation purposes and updating procedures to ensure incidents do not occur.

- All monitoring results shall be documented and made available for inspection by the relevant authorities.
 During the construction phase, the water quality from the sump should also be monitored.
- The parameters to be monitored shall comprise:
 - o pH
 - Turbidity
 - Electrical Conductivity
 - Dissolved Oxygen
 - Temperature
 - o Total Suspended Solids
 - o Total Petroleum Hydrocarbons
 - Chloride
 - Nitrate (baseline monitoring only).
- Following completion of works, implement a monitoring programme for a minimum of six months to confirm no adverse impacts have occurred. Sampling shall be undertaken monthly and following significant rainfall events, including all parameters listed above.
- Any exceedance of trigger levels or evidence of contamination shall result in immediate investigation and implementation of remedial measures.
- Additional monitoring should be conducted following significant rainfall events or if inspections indicate
 potential pollution.

5.3.10 Review and Emergency Preparedness

- Review and update all mitigation measures prior to commencement of works to ensure alignment with final construction methodologies and recognition of the indirect hydraulic connection to Lough Ree.
- Prepare and implement an Emergency Response and Flood Contingency Plan to address accidental spills or flooding events, including procedures for temporary suspension of works when the High-Water Alert Level is exceeded.

5.3.11 Groundwater Monitoring Well

A dedicated groundwater monitoring well will be installed on the site, downgradient to the proposed development and prior to the commencement of construction activities. This is subject to advance consultation and agreement with the National Parks and Wildlife Service (NPWS), given the location of the site within the Lough Ree SAC. This well should:

- Be designed with a sealed upper section to prevent ingress of shallow or ponding water.
- Be fitted with a calibrated automatic logger to enable continuous recording of groundwater levels and allow prompt response to changing conditions.
- Establish a High Water Alert Level of 36.5m a.OD, above which excavation and other ground disturbing works shall be temporarily suspended until water levels recede.
- Be sampled prior to works to establish a baseline dataset of groundwater levels and water quality, and
 periodically during construction and for at least six months post-construction to confirm no adverse
 impacts. All monitoring results shall be recorded and made available to the relevant authorities upon
 request. Upon completion of the groundwater monitoring post-construction, the monitoring well should
 be decommissioned in an approved manner.

5.4 Tree Protection

5.4.1 Contractor's Obligations

The Contractor shall take all precautions to ensure that any trees which are not required to be taken down under the contract shall remain undisturbed and undamaged. All works to trees and all operations adjacent to trees should be undertaken in accordance with the Code of Practice. The Contractor shall undertake no works to trees unless instructed by the Contract Administrator.

5.4.2 Maintenance of Protected Tree Zone

The 'Protected Tree Zone' should under no circumstances be used for storage of materials, equipment, or site debris. No fires should be lit within the "Protected Tree Zone", or equipment washed or cleaned.

5.4.3 Below Ground

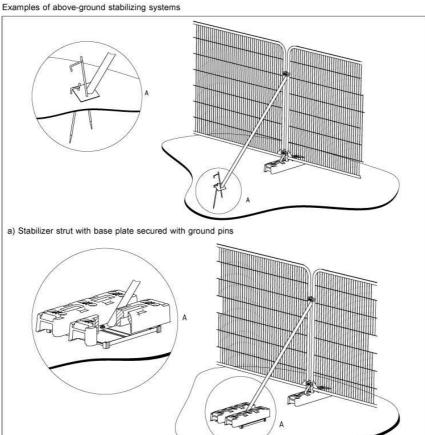
Wherever trees are present, precautions should be taken to minimise damage to their root systems. As the shape of the root system is unpredictable, there should be control and supervision of any works, particularly if this involves excavating through the surface 600mm, where the majority of roots develop.

5.4.3.1 Fine Roots

Fine roots are vulnerable to desiccation once they are exposed to the air. Larger roots have a bark layer which provides some protection against desiccation and temperature change. The greatest risk to these roots occurs when there are rapid fluctuations in air temperature around them e.g. frost and extremes of heat. It is therefore important to protect exposed roots where a trench is to be left open overnight where there is a risk of frost. In winter, before leaving the site at the end of the day, the exposed roots should be wrapped with dry sacking. This sacking must be removed before the trench is backfilled.

5.4.3.2 Precautions

The precautions referred to in this section are applicable to any excavations or other works occurring within the Prohibited or Precautionary Zones as illustrated below:



5.4.3.3 Additional Precautions Around Trees

b) Stabilizer strut mounted on block tray

Movement of heavy mechanical plant (excavators etc.) must not be undertaken within the Prohibited Zone and should be avoided within the Precautionary Zone, except on existing hard surfaces, in order to prevent unnecessary compaction of the soil. This is particularly important on soils with a high proportion of clay. Spoil or material must not be stored within the Prohibited Zone and should be avoided within the Precautionary Zone.

Where it is absolutely necessary to use mechanical plant within the Precautionary Zone care should be taken to avoid impact damage to the trunk and branches. A tree must not be used as an end-stop for paving slabs or other materials nor for security chaining of mechanical plant. If the trunk or branches of a tree are damaged in any way advice should be sought from the supervising arboriculturist.

See table below 'Prevention of Damage to Trees Below Ground' below for summary details regarding causes and types of damage to trees and the implications of the damage and the necessary precautions to be taken to avoid damage.

Table 1. Prevention of Damage to Trees Below Ground

Causes of	Type of Damage	Implications to Tree	Precautions
Damage			
Trenching,	Root severance	- The tree may fall over	Hand excavate only within the
mechanical		 Death of the root 	Precautionary Zone. Work carefully
digging etc.		beyond the point of	around roots. Do not cut roots over
		damage	25mm in diameter without referring

		- Potential risk of	to the consulting arborist. For roots
		infection of the tree	less than 25mm in diameter use a
		- The larger the root the	sharp tool and make a clean cut
		greater the impact on	leaving as small a wound as
		the tree.	possible.
Trenching,	Root bark damage	- The tree may fall over	Do not use mechanical
mechanical	rtoot bank damage	- If the damage circles	machinery to strip the topsoil within
digging, topsoil		the root it will cause the	the Precautionary Zone.
surface removal		death of the root	Hand excavate only within the
etc.		beyond that point	Precautionary Zone. Work carefully
Olo.		- Potential risk of	around roots. Do not cut roots over
		infection of the tree	25mm in diameter without referring
		- The larger the root the	to the consulting arborist.
		greater the impact on	For roots less than 25mm use a
		the tree.	sharp tool and make a clean cut
		the free.	leaving as small a wound as
			possible.
Vehicle	Soil compaction &	- Restricts or prevents	Prevent all vehicle movement, plant
movement and	water saturation	passage of gaseous	use or material storage within the
			-
plant use. Material storage		diffusion through soil, the roots are	Precautionary Zone.
within the			Use tree root protection mats
		asphyxiated and killed	where this is not possible.
precautionary area.		affecting the whole tree.	
	Alterations in soil	Lowering levels strips out the	Avoid altering or disturbing soil
Top-soil		mass of roots over a wide area.	
scouring, excavation or	level causing	Raising soil levels asphyxiates	levels within the Precautionary Zone.
	compaction or		Zone.
banking up.	exposure of roots.	roots and has the same effect as	
	D :	soil compaction.	T
Use of	Poisoning of	- Death of the whole tree	The selection and application of
herbicides.	the tree via root	- Death of individual	herbicides must be undertaken by a
	absorption	branches	competent person in accordance
		- Damage to leaves and	with COSHH regulations.
		shoots.	
Spillage of oils or	Contamination of	Toxic and asphyxiation effects of	Never store oils, chemicals or
other materials.	soil	chemicals, oils, building	building materials within the
		materials (cement, plaster,	Precautionary Zone or within the
		additives etc.) on the root	branch spread of a tree, whichever
		system can kill the tree.	is the greater.
Placement or	Various	Death of all or part of the tree.	Effective planning and liaison with
replacement of			the consulting arborist, taking into
underground			consideration the position of trees,
apparatus.			and their future growth potential

5.4.3.4 Tree Root Protection Mats

Protective matting should be placed over the initial work zone areas near tree root systems to mitigate any adverse effects from the presence of machinery and associated construction activity by works personnel. These also have the benefit of protecting the soil from any potential works contaminants due to works.

5.4.4 Above Ground

5.4.4.1 Damage by Pruning

Trees (including shrubs and hedges) can be damaged by inappropriate or excessive pruning. The aim of pruning should be to achieve vegetation clearances in ways which minimise the aesthetic and physical impact on retained trees and shrubs.

Reasonable care should be taken to avoid unnecessary damage to flora and fauna and to access ways.

Work should comply with BS3998. Pruning is a skilled job which should be undertaken by appropriately trained and experienced staff.

Given constraints often imposed by others it is not always possible to prune in an aesthetically pleasing way. However an effective Utility Arborist adjusts the work carried out for each plant to achieve the best possible standard, given the prevailing constraints.

- Ideally vegetation is left well balanced with natural crown shapes
- Pruning must also take into account the vegetation re-growth expected in the interval between cuts. This will vary widely between plant species and sites.
- Vegetation management: tree selection for retention and replanting at an early stage can be used to
 prevent the need for much more intrusive and damaging work in the future when the vegetation grows
 closer to the overhead line. Good practice often involves interventions over a number of cutting cycles to
 manage trees and shrubs so that future conflict with local infrastructure is minimised.

Where reasonably possible avoid recognised injurious practices such as:

- Topping or lopping to an arbitrary height or branch length
- Unbalancing a tree crown by excessive one-sided pruning
- Pollarding. Unless pollarding is the existing recognised management technique.
- Inappropriate use of flailing.
- Climbing damage Care should be taken to avoid injuring thin and weak barked species by inappropriate use of rope access techniques.
- Access damage Vehicle access and treatment of arisings should avoid injury to low branches, stems, root buttresses and feeder roots.
- Spreading Disease Appropriate regard should be given to avoid spreading fungal diseases.

Table 2. Prevention of Damage to Trees Above Ground

Causes of	Type of Damage	Implications to Tree	Precautions
Damage			
Impact by vehicle	Bark bruising, bark	- Wounding with the	Surround the trunk with protective
or plant	removal, damage to the wood, damage	potential for infection ultimately resulting in	free-standing barrier. Exclude
Physical	to buttress roots,	death of all or part of	vehicles, plant or material storage
attachment of signs	abrasion to trunk	the tree Structural failure of	from the Precautionary Zone.
or hoardings to the		the tree	Ensure sufficient clearance of

trunk Storage of			cables or ropes.
materials at base of			
tree			
Rubbing by winch			
or pulling cables			
Impact by vehicle	Bark damage to	- Structural failure of	Exclude vehicles, plant or
or plant	branches, breakage	the branch.	material storage from the
Rubbing by	and splitting of	 Wounding or loss of a 	Precautionary Zone. Ensure
overhead cables	branches, abrasion	branch with the	sufficient clearance of cables or
	to branches	potential for infection	ropes.
		ultimately resulting in	All pruning should be carried out
		death of all or part of	in accordance with BS3998
		the branch or tree.	(prune affected branches to give
			appropriate clearance from
			cables)
Inappropriate	Inappropriate	- Severely pruning tree	Effective planning and liaison with
siting of overhead	pruning, unnecessary tree	to acquire line of sight	arboriculturist, taking into
apparatus, such as	removal	signal for	consideration the position of
CCTV, lighting		communications dish	trees, and their future growth
fixtures and		etc.	potential and management.
communications			
masts and dishes.			
Lack of forethought	Complete tree	The tree is removed	Agree the location and installation
in design and	removal	unnecessarily	of services at the design stage.
location of			Consideration should be given to
apparatus and			the creation of dedicated service
services entries on			routes wherever possible.
new developments			
Use of herbicides.	Poisoning of	- Death of the whole	The selection and application of
	the tree via root	tree	herbicides must be undertaken by
	absorption	- Death of individual	a competent person in
		branches	accordance with COSHH
		- Damage to leaves	regulations.
		and shoots.	

5.4.4.2 Chemical Damage to Trees

Chemical damage to trees adjacent to utility premises and operational land can be avoided if;

- the risk is identified when planning any work involving herbicides or other chemicals ensuring that only
 appropriate chemicals are used. Particular care should be exercised when considering the use of
 herbicides recommended for "non crop areas" as many of these also specify "do not use where there
 may be roots of desirable plants",
- herbicides are applied only at the rate and in the manner recommended by the manufacturer,
- follow-up applications are not undertaken until weeds reappear on the operational land,
- alternative methods of weed control are considered.

5.5 Noise

Noise monitoring will be established on site throughout the project. Noise monitoring shall be carried out for a period of at least 2 weeks prior to any works commencing, in order to establish a baseline, and the results communicated to Louth County Council in the form of baseline reports.

All construction activities will be carried out in compliance with the recommendations of BS 5228 "Code of practice for noise and vibration control on construction and open sites – Part 1: Noise" and comply with BS 6187 Code of Practice for Demolition. The measures employed to ensure compliance will include:

- Noise monitoring stations, monitored daily, located on site and at recommended locations in the vicinity
 of the site, to record background and construction noise activity.
- The best means practical used to minimise the noise produced by all on site operations.
- Proper maintenance of all operating plant to ensure noise emission compliance.
- Selection of all operating plant on the basis of incorporating noise reducing systems, with a minimum requirement that effective exhaust silencers be fitted.
- Fitting of compressors with acoustically lined covers, which will remain closed while the machines are in operation.
- Construction plant would be switched off or throttled back to a minimum when not in use.
- Location of plant such as pumps and generators, which are required to work outside of normal working hours, within acoustic enclosures.
- Strict adherence to the site working hours stipulated in the planning conditions.

5.6 Lighting

Throughout this sensitive location accessories such as baffles, hoods or louvres will be used to reduce light spill and direct light to where it is needed. Only luminaires which do not emit UV light will be used; metal halide and fluorescent light sources will not be used and lower intensity LED luminaires with sharp cut-off, good colour rendition and dimming capability will be used.

5.7 Air Quality Monitoring

Appropriate Air Quality and Dust monitoring will be carried out on a regular basis in accordance with planning conditions and records will be kept of all such monitoring for review by the Planning Authority. The following measures are proposed to mitigate any air pollution problems that site activity may cause:

- 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.
- Any road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions.
- Vehicles exiting the site shall make use of a wheel wash facility prior to entering onto public roads.
- Vehicles using site roads will have their speed restricted, and this speed restriction will be enforced rigidly. On any un-surfaced site road, this will be 10 kph.
- Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary.
- 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.
- 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.
- Prevention of on-site or delivery vehicles from leaving engines idling, even over short periods.

- Ensure all plant and machinery are well maintained and inspected regularly.
- Minimising waste of materials due to poor timing or over ordering on site will aid to minimise the embodied carbon footprint of the site.

5.8 Migrating Dust and Dirt Pollution

The Contractor will ensure that all construction vehicles that exit the site onto the public roads will not transport dust and dirt to pollute the external roadways. This will be achieved through a combination of the following measures:

- Ensuring that construction vehicles have a clean surface to travel on within the site (i.e. haul road).
- Ensuring that all construction vehicles are inspected by the gateman for cleanliness prior to exiting the site
- Ensuring that an appropriate wheel or road washing facility is provided as and when required throughout the various stages of construction on site.

The use of appropriate water-based dust suppression systems will greatly reduce the amount of dust and windborne particulates as a result of the construction process. This system will be closely monitored by site management personnel, particularly during extended dry periods and in accordance with site management methods.

5.9 Harmful Materials

Harmful material will be stored on site for use in connection with the construction works only. These materials will be stored in a controlled manner.

Where on-site facilities are used, there will be a bunded filling area using double bunded steel tank at a minimum.

6. Waste Management

Waste Management Plan will be developed by the contractor once they have reviewed this outline CEMP document

6.1 Waste Storage Areas

A designated waste storage area located onsite, would be established by the construction works contractor. Suitable waste receptacles / skips would be provided by the appointed waste contractor(s) during the construction phase, with skips / bins allocated to specific waste streams to avoid contamination. The number and size of waste receptacles / skips would be determined following the appointment of the waste contractor(s). Waste receptacles would be appropriately labelled.

Where waste fuels and oils are generated, they would be stored within a bunded container within the designated waste storage area. Any hazardous materials would be stored separately from non-hazardous waste and would be stored within bunded containers / upon a bund where appropriate.

The removal of waste from the site would be undertaken on a regular basis, preventing large volumes of waste accumulating onsite.

6.2 Waste Contractors

The collection of wastes from the site would be undertaken by suitably authorised waste hauliers and would only be recycled / recovered or disposed of at suitably licenced waste facilities.

The construction works contractor would appoint a waste contractor(s) for the construction phase. The waste contractor(s) appointed for the project would have experience in construction waste management and would be appropriately licenced, holding the relevant waste collection permit and/or waste licences for the types of waste anticipated to be generated during construction works.

The waste contractor(s) would be appropriately licenced in compliance with the following regulations:

- Waste Management (Collection Permit) Regulations 2007 (S.I. No. 820 of 2007);
- Waste Management (Collection Permit) Amendment Regulations 2008 (S.I. No. 87 of 2008);
- Waste Management (Facility Permit and Registration) Regulations 2007 (S.I. No. 821 of 2007);
- Waste Management (Facility Permit and Regulations) Amendment Regulations 2008 (S.I. No. 86 of 2008).

The construction works contractor would ensure that copies of all waste contractors' collection permits and licences would be available for inspection, as discussed in the "Record Keeping" section below.

6.3 Waste Management

- Building materials will be chosen to 'design out waste';
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse,
 recycling and recovery. The following waste types, at a minimum, will be segregated:
 - o Concrete rubble (including ceramics, tiles and bricks);
 - Metals;
 - Glass;
 - o Hazardous material; and
 - Timber
- Left over materials (e.g., timber off-cuts, broken concrete blocks / bricks) and any suitable construction
 materials shall be re-used on-site, where possible; (alternatively, the waste will be sorted for recycling,
 recovery or disposal);
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site;
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated
 and will be stored in appropriate receptacles (in suitably bunded areas, where required);
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the excavation and construction works;
- All construction staff will be provided with training regarding the waste management procedures;
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal;
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities; and
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

6.4 Waste Minimisation

Waste minimisation and prevention would be the responsibility of the construction works contractor, who would ensure the following:

- The efficient ordering and purchasing of materials to reduce surplus materials;
- · Materials would be ordered in appropriate sequence to minimise materials stored on site;
- The correct storage of materials to minimise the generation of damaged materials, for example keeping materials packaged until they are ready to be used and storing materials which are vulnerable to water damage via precipitation under cover and raised above the ground;
- The handling of materials with care, to avoid undue damage;

- The return of uncured concrete to the batching plant where possible;
- · The re-use of shutters for concrete works;
- Where possible, excavated subsoil and topsoil would be reused for the reinstatement of the development site. The construction works contractor would reuse materials onsite where possible. In particular, inert wastes (such as concrete (EWC 17 01 01), bricks (EWC 17 01 02) and soils and stones (EWC 17 05 04)) would be used for infilling activities where suitable (and where required).

6.5 Records

For each waste movement and for each type of waste, the construction works contractor would obtain a signed waste docket from the waste contractor, detailing the weight, type of material, destination of material and whether the material is going for recycling, recovery, or disposal. The construction works contractor would retain copies of the waste contractors' relevant waste collection permits and waste licences on file throughout the construction phase.

7. Traffic Management

7.1 Site Traffic, Traffic and Pedestrian Management

Access to the development site for construction traffic shall be from Main Street (N63) Between St. Mary's Town Hall and Lough Ree Distillery; this is the primary link street running through the North Commons.

All vehicular access routes during the construction phase will be laid out in accordance with the requirements of Chapter 8 of the Traffic Signs Manual. Security personnel will be present at the site entrance/exit to ensure that all traffic exiting the construction site does so safely. A wheel wash will be installed at the exit from the site, to prevent excess dirt being carried out into the public road. If necessary, a road sweeper will be used to keep the public road around the site clean.

7.2 Minimisation of Construction Vehicle Movements

The major construction items include excavation and fill, substructure, and superstructure construction. It is expected that construction traffic to and from the site shall reach a peak during the preliminary earthworks, which are required to create the mounded area for the amphitheatre seating. The final programming and scheduling of this material transfer shall be determined by the appointed contractor.

The construction site will be delineated by means of hoardings and lockable gates with screened fencing at the entry and exit points. The Contractor will pay particular attention to pedestrian traffic and safety at the entrances. All vehicles will enter and exit the site in a forward direction. Pedestrians will have right of way. If required, alternate pedestrian routes around the site will be created and clearly signed. Depending on the progress of the works and temporary constraints imposed by the construction methodology, the location of access and exit points to the site may vary.

7.3 Cycling

Cycle parking spaces will be provided on the site for construction personnel. In addition, lockers will be provided to allow cyclists to store their cycling clothes.

7.4 Car Sharing

Car sharing among construction personnel will be encouraged, especially from areas where construction personnel may be clustered. The contractor shall aim to organize shifts in accordance with personnel origins, hence enabling higher levels of car sharing. Such a measure offers a significant opportunity to reduce the

proportion of construction personnel driving to the site and will minimise the potential traffic impact on the surrounding road network.

7.5 Public Transport

Construction personnel will be encouraged to use public transport as means to travel to and from the site. An information leaflet shall be provided to all personnel as part of their induction on site, highlighting the location of the various public transport services in the vicinity of the construction site.

7.6 Public Roads

A Visual Condition Survey (VCS) will be carried out of all surrounding streets prior to any site works commencing. The contractor will liaise with the Transportation and Infrastructure department of Longford County Council to agree any changes to load restrictions and construction access routes for the site. Measures will be put in place as required to facilitate construction traffic whilst simultaneously protecting the built environment.

All entrances and temporary roads will be continuously maintained for emergency vehicle access. The following measures will be taken to ensure that the site, public roads, and surroundings are kept clean and tidy:

- a regular programme of site tidying will be established to ensure a safe and orderly site.
- scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind.
- food waste will be strictly controlled on all parts of the site.
- mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be allowed to accumulate.
- wheel wash facilities will be provided for vehicles exiting the site.
- in the event of any fugitive solid waste escaping the site, it will be collected immediately and removed.

7.7 Project Specific Traffic Management Plan

A detailed project specific traffic management plan will be developed by the contractor and agreed with Longford County Council and An Garda Síochána prior to works commencing on site. This plan will be updated as required throughout the project. Issues addressed in the Traffic Management Plan will include:

- Public safety
- Construction traffic routes
- Deliveries schedule
- Special deliveries (wide and long loads)
- Traffic flows
- Signage and lighting
- Road opening requirements
- Road closures
- Lighting

A liaison officer will be appointed as a point of contact with local residents, Longford County Council and An Garda Síochána.'

8. Sensitive Receptors and Analysis for Significant Effects

The sensitive receptors in the vicinity of the proposed development have been analysed in CAAS' Appropriate Assessment Screening Report & Natura Impact Statement and are summarised in the table below:

Table 3: Screening assessment of the potential effects arising from the proposed development (from Table 6.1 of the Appropriate Assessment Screening Report & Natura Impact Statement)

European	Qualifying feature	Analysis for likely significant effects	Likelihood
site			of
			significant effects
Lough	Otter (Lutra lutra) [1355],	Considering the Qualifying Interests and known	Yes
Ree SAC	Degraded raised bogs still	sensitivities of this European site (detailed in Appendix	
	capable of natural	III of this AASR), in view of their Conservation	
	regeneration [7120], Natural	Objectives, and the potential effects identified in s5, this	
	eutrophic lakes with	SAC is sensitive to hydrological interactions, land use	
	Magnopotamion or	management, and groundwater interactions.	
	Hydrocharition - type	This CAC is mantially within and adjacent to the	
	vegetation [3150], Semi- natural dry grasslands and	This SAC is partially within and adjacent to the	
	scrubland facies on	proposed development. There are sources for significant effect via hydrogeology during the	
	calcareous substrates	construction phase due to the presence of limestone	
	(Festuco-Brometalia) *	bedrock connecting the proposed site directly to this	
	important orchid sites	SAC. Considering the nature of the proposed	
	[6210], Active raised bogs	development's construction phase with the	
	[7110], Alluvial forests with	hydrogeological characters of the site, and the	
	Alnus glutinosa and	proximity of this SAC, there is a risk of significant	
	Fraxinus excelsior (Alno-	effects the Qualifying Interest of this SAC in the	
	Padion, Alnion incanae,	absence of mitigation.	
	Salicion albae) [91E0],	assertes of manganerin	
	Alkaline fens [7230],		
	Limestone pavements		
	[8240], Bog woodland		
	[91D0]		
Lough	Little Grebe (Tachybaptus	Considering the Special Conservation Interests and	Yes
Ree SPA	ruficollis) [A004], Wetland	known sensitivities of this European site (detailed in	
	and Waterbirds [A999],	Appendix III of this AASR), in view of their	
	Whooper Swan (Cygnus	Conservation Objectives, and the potential effects	
	cygnus) [A038], Wigeon	identified in s5, this SPA is sensitive to hydrological	
	(Anas penelope) [A050],	interactions, disturbance interactions and groundwater	
	Teal (Anas crecca) [A052],	interactions.	
	Mallard (Anas		
	platyrhynchos) [A053],	As above, there are sources for significant effect via	
	Shoveler (Anas clypeata)	hydrogeology during the construction phase due to the	
	[A056], Tufted Duck	presence of limestone bedrock connecting the	
	(Aythya fuligula) [A061],	proposed site directly to this SPA. This SPA is	
	Common Scoter (Melanitta	designated for species that are sensitive to changes in	
	nigra) [A065], Goldeneye	water quality of their breeding and/or foraging habitat.	
	(Bucephala clangula)	Considering the nature of the proposed development's	
	[A067], Coot (Fulica atra)	construction phase with the hydrogeological characters	
	[A125], Golden Plover	of the site, and the proximity of this SPA, there is a risk	

(Pluvialis apricaria) [A140],	of significant effects on the Special Conservation	
Lapwing (Vanellus vanellus)	Interest species of this SPA in the absence of	
[A142], Common tern	mitigation.	
(Sterna hirundo) [A193]		

9. Mitigation Measures and Monitoring

Standard construction and operational controls will be incorporated into the proposed development project to minimise the potential negative impacts on the ecology within the Zone of Influence (ZoI) including Lough Ree as described in Section 5. For further details on sensitive receptors please refer to CAAS' Appropriate Assessment Screening Report & Natura Impact Statement and Report on supporting Ecological Surveys.

Designated Conservation sites within 15km

As the main potential vector for impacts would be seen to be via Lough Ree, no additional controls are required besides those outlined below, during the construction and operational phases of the development, to mitigate against potential negative impacts on designated conservation sites. The mitigation has been designed to ensure that the project will comply with the Water Pollution Acts and standard Longford County Council Conditions in relation to construction and drainage. All construction and operational phase controls outlined in the CEMP must be followed. The CEMP will be updated following any additional conditions received during planning and approved Longford County Council prior to the commencement of the relevant phase on site.

• Development Construction

Contamination of watercourses. Excavation and construction, in proximity to the Lough Ree must be carried out in line with the advice and findings from the flood risk assessment, hydrology report and Natura Impact Statement following the best practice guidelines for construction in the vicinity of watercourses.

All works on site will have sufficient mitigation measures to prevent contamination runoff towards Lough Ree during works. As well as reducing impact to local fauna.

Table 4. Construction phase measures – Lough Ree SAC (from Table 8.1.1. of the Appropriate Assessment Screening Report & Natura Impact Statement)

Qualifying	Source(s) for	Mitigation measure(s)	Residual
Interests /	potential		impacts
receptors	adverse effects		post
			mitigation?
Otter (Lutra lutra)	Surface runoff of	A buffer zone of at least 20m separating working machinery from	No
[1355], Degraded	silt, construction	watercourses. Silt fencing and bunding will be installed previous to	
raised bogs still	materials, cement,	construction starting and remain in place throughout the	
capable of natural	fuel, soil storage	construction stage see Figure 8.1 [Appropriate Assessment	
regeneration	and dust in the	Screening Report & Natura Impact Statement] for plan of	
[7120], Natural	construction phase	construction stage measures. Regarding earthworks: site	
eutrophic lakes	during heavy	clearance will not be undertaken during wet conditions, when	
with	rainfall	rainfall of more than 0.5 mm/hour is forecast within the next 24	
Magnopotamion		hours or rainfall of more than 3mm/hour is forecast within the next	
or Hydrocharition		five days in the works area. Silt fencing will be installed to retain	
- type vegetation		eroded sediments. All preliminary site works and construction	

[3150], Seminatural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Active raised bogs [7110], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Alkaline fens [7230], Limestone pavements [8240], Bog woodland [91D0]

stage surface water run-off will be managed as part of the existing approved surface water management system with integrated hydrocarbon and silt removal. The contractor will be obliged to ensure no deleterious discharges are released from the sites to Lough Ree during excavation, de-watering, or erecting activities. There will not be discharge of silty water from the works to any watercourse, will any discharge of construction water be required during the construction phase, discharge will be to foul sewer following agreement with the Council/ Irish Water. There will be no discharge of effluent to groundwater during the construction phase. All wastewater from the construction facilities will be stored for removal off site for disposal and treatment. Refuelling of machinery will be done off-site or at a designated bunded refuelling area. Oil and fuel storage tanks will be stored in designated areas, and these areas will be bunded to a volume of 110% of the capacity of the largest tank/container within the bunded area(s) (plus an allowance of 30 mm for rainwater ingress). Drainage from the bunded area(s) will be diverted for collection and safe disposal. In order to minimise the risk of contamination, any stockpiled material designated for removal will be removed off-site as soon as possible. Surface water drain gratings in areas near or close to where stockpiles are located will be covered by appropriate durable polyurethane covers or similar. Active treatment systems such as siltbusters or similar may will be adopted, depending on turbidity levels and discharge limits. Construction works will be scheduled to be predominantly carried out during periods of low water levels on Lough Ree (May to September). Excavation and construction activities during or immediately after severe rainfall events will be avoided, to minimise flood risk and potential water ingress into the quarry floor. A suitable risk assessment for wet concreting will be completed prior to works being carried out. No batching of wet-cement products will occur on site. Ready-mixed concrete will be delivered to the excavation site. Where possible, emplacement of pre-cast elements, will take place. Where possible pre-cast elements will be used; Weather forecasting will be used to plan dry days for pouring concrete; The small volume of water that will be generated from washing of the concrete lorry chutes will be directed into a concrete washout area. Groundwater and sump water levels will be regularly monitored during construction to provide early warning of elevated groundwater conditions. Baseline groundwater quality sampling will be conducted prior to commencement of works, and periodic sampling will be undertaken during construction phase to confirm that no adverse impacts on groundwater or indirectly connected habitats are occurring. Regular auditing of construction / mitigation measures will be undertaken, e.g. concrete pouring, refuelling in designated areas, etc. A log the regular inspections will be maintained, and any significant blockage or spill incidents will be recorded for root cause investigation purposes and updating procedures to ensure that any such incidents are not repeated. The following parameters shall be monitored: pH

- TurbidityElectrical Conductivity
- Dissolved OxygenTemperature
- · Total Suspended Solids
- · Total Petroleum Hydrocarbons
- Chloride
- Nitrate (baseline monitoring only). Following completion of works, a monitoring programme will be implemented for a minimum of six months to confirm no adverse impacts have occurred. Sampling will be undertaken monthly and following significant rainfall events, including all parameters listed above. All mitigation measures will be reviewed and updated prior to commencement of works to ensure alignment with final construction methodologies and recognition of the indirect hydraulic connection to Lough Ree. A dedicated groundwater monitoring well will be installed on the site, downgradient to the proposed development and prior to the commencement of construction activities. This is subject to advance consultation and agreement with the National Parks and Wildlife Service (NPWS), given the location of the site within the Lough Ree SAC. This well will:
- Be designed with a sealed upper section to prevent ingress of shallow or ponding water.
- Be fitted with a calibrated automatic logger to enable continuous recording of groundwater levels and allow prompt response to changing conditions.
- Be sampled prior to works to establish a baseline dataset of groundwater levels and water quality, and periodically during construction and for at least six months post-construction to confirm no adverse impacts. All monitoring results shall be recorded and made available to the relevant authorities upon request. Upon completion of the groundwater monitoring post-construction, the monitoring well should be decommissioned in an approved manner. A High Water Alert Level of 36.5m a.OD will be established, above which excavation and other ground disturbing works will be suspended until water levels recede.

Table 5: Construction phase measures – Lough Ree SPA (from Table 8.1.2. of the Appropriate Assessment Screening Report & Natura Impact Statement)

Qualifying	Source(s) for	Mitigation measure(s)	Residual
Interests /	potential		impacts
receptors	adverse effects		post
			mitigation?
Little Grebe	Surface runoff of	A buffer zone of at least 20m will separate working machinery from	No
(Tachybaptus	silt, construction	watercourses. Silt fencing and bunding will be installed prior to	
ruficollis) [A004],	materials, cement,	construction starting and will remain in place throughout the	
Wetland and	fuel, soil storage	construction stage - see Figure 8.1 [Appropriate Assessment	
Waterbirds	and dust in the	Screening Report & Natura Impact Statement] for plan of	
[A999], Whooper	construction phase	construction stage measures.	
Swan (Cygnus	during heavy	Regarding earthworks: site clearance is not to be undertaken	
cygnus) [A038],	rainfall	during wet conditions, when rainfall of more than 0.5 mm/hour is	

Wigeon (Anas penelope) [A050], Teal (Anas crecca) [A052], Mallard (Anas platyrhynchos) [A053], Shoveler (Anas clypeata) [A056], Tufted Duck (Aythya fuligula) [A061], Common Scoter (Melanitta nigra) [A065], Goldeneye (Bucephala clangula) [A067], Coot (Fulica atra) [A125], Golden Plover (Pluvialis apricaria) [A140], Lapwing (Vanellus vanellus) [A142], Common tern (Sterna hirundo) [A193]

forecast within the next 24 hours or rainfall of more than 3mm/hour is forecast within the next five days in the works area. Silt fencing will be installed to retain eroded sediments. All preliminary site works and construction stage surface water run-off will be managed as part of the existing approved surface water management system with integrated hydrocarbon and silt removal. The contractor will be obliged to ensure no deleterious discharges are released from the site to Lough Ree during excavation, dewatering, or erecting activities. There will not be discharge of silty water from the works to any watercourse. Should any discharge of construction water be required during the construction phase discharge will be to foul sewer following agreement with the Council/ Irish Water. There will be no discharge of effluent to groundwater during the construction phase. All wastewater from the construction facilities will be stored for removal off site for disposal and treatment. Refuelling of machinery shall be carried out off-site or at a designated bunded refuelling area. Oil and fuel storage tanks will be stored in designated areas, and these areas will be bunded to a volume of 110% of the capacity of the largest tank/container within the bunded area(s) (plus an allowance of 30 mm for rainwater ingress). Drainage from the bunded area(s) will be diverted for collection and safe disposal. In order to minimise the risk of contamination, any stockpiled material designated for removal will be removed off-site as soon as possible. Surface water drain gratings in areas near or close to where stockpiles are located will be covered by appropriate durable polyurethane covers or similar. Active treatment systems such as siltbusters or similar will be utilised, depending on turbidity levels and discharge limits. Construction works predominantly will be scheduled to be carried out during periods of low water levels on Lough Ree (May to September). Excavation and construction activities during or immediately after severe rainfall events will be avoided, to minimise flood risk and potential water ingress into the quarry floor. A suitable risk assessment for wet concreting will be completed prior to works being carried out. No batching of wet-cement products will occur on site; Ready-mixed concrete will be delivered to the excavation site. Where possible, emplacement of pre-cast elements, will take place. Where possible pre-cast elements will be used. Weather forecasting will be used to plan dry days for pouring

The small volume of water that will be generated from washing of the concrete lorry chutes will be directed into a concrete washout area. Groundwater and sump water levels will be regularly monitored during construction to provide early warning of elevated groundwater conditions. Baseline groundwater quality sampling will be conducted prior to commencement of works, and periodic sampling will be undertaken during construction phase to confirm that no adverse impacts on groundwater or indirectly connected habitats are occurring. Regular auditing of construction / mitigation measures will be undertaken, e.g. concrete pouring, refuelling in designated areas, etc. A log the regular inspections will be maintained, and any significant blockage or spill incidents will be

recorded for root cause investigation purposes and updating procedures to ensure incidents do not occur. The following parameters shall be monitored: • pH Turbidity Electrical Conductivity Dissolved Oxygen • Temperature Total Suspended Solids • Total Petroleum Hydrocarbons Chloride · Nitrate (baseline monitoring only). Following completion of works, monitoring programme shall be implemented a for a minimum of six months to confirm no adverse impacts have occurred. Sampling shall be undertaken monthly and following significant rainfall events, including all parameters listed above. • All mitigation measures will be reviewed and updated prior to commencement of works to ensure alignment with final construction methodologies and recognition of the indirect hydraulic connection to Lough Ree

Table 6: Construction phase measures – Bats and amphibians

Qualifying	Source(s) for potential adverse effects	Mitigation measure(s)	Residual
Interests /			impacts
receptors			post
			mitigation?
Bats;	The survey for PRFs recorded no trees immediately	Throughout this sensitive	No
Soprano	surrounding the proposed site that are suitable for bat	location accessories such	
pipistrelle,	roost habitat. This is due to the presence of short coppiced	as baffles, hoods or	
Common	trees, hedgerows such as thick hawthorn, or trees that are	louvres will be used to	
pipistrelle,	too immature to carry any features that would have	reduce light spill and direct	
Leisler's bat,	potential to support a bat roost (i.e., cracks, crevices, thick	light to where it is needed.	
Brown long-eared	ivy growth etc.). However, the exposed rock face of the	Only luminaires which do	
bat	disused quarry is all potential bat roost habitat for several	not emit UV light will be	
	species of bat that might occur in the area. Regarding	used; metal halide and	
	swarming habitat, no suitable habitat was identified for	fluorescent light sources	
	swarming behaviour. As expected, the vegetative habitats	will not be used and lower	
	surrounding the proposed site provide ample habitat for	intensity LED luminaires	
	commuting, foraging and ecological connectivity with the	with sharp cut-off, good	
	surrounding landscape.	colour rendition and	
		dimming capability will be	
		used.	
		Restrict noise to daylight	
		hours	
Amphibians;	The preliminary inspection of the proposed development	An area of high value	No
Common frog	site for suitable amphibian habitat (conducted in February	habitat for breeding	
(Rana	2025), found two areas with potential to support breeding	amphibians was located	
temporaria),	amphibian species namely, common frog (Rana	along the southwestern	

Smooth Newt (Lissotriton vulgaris) temporaria) and smooth newt (Lissotriton vulgaris). These potential amphibian habitats are indicated by "Other artificial lakes and ponds FL1" and "Wet willow, alder, ash woodland WN6" in the habitat map provided in Figure 4.1 [of Report on Supporting Ecological Surveys]. These were the only areas of potential amphibian habitat that fall within the works area of the proposed development.

A follow up survey was conducted within the amphibian breeding season to examine both areas for evidence of breeding population of common frog and smooth newt. The survey found no evidence of either species within the "Other artificial lakes and ponds FL1" habitat. It was not possible to access the Wet willow, alder, ash woodland WN6 habitat with sufficient proximity to conduct an accurate survey of presence of either species due to thick brush. However, this habitat is considered to have high suitability to support common frog and smooth newt populations.

As noted in the habitat's discussion above (s4.2), the "Other artificial lakes and ponds FL1" habitat showed evidence of recent dumping of gravel and soil materials around its edge and encroaching into the wet area. This likely creates a source for silt run off and pollution into that area of freshwater. This could be why no evidence of breeding amphibians was recorded at this location. As the "Wet willow, alder, ash woodland WN6" habitat could not be accessed due to thick brush but given the maturity and high quality of the habitat noted; for the purposes of this report, it is assumed that both species occur there, and thus appropriate mitigation can be prescribed to protect the area.

Given the sensitivity of the surrounding freshwater habitats (i.e., Lough Ree and associated riparian habitats), and their proximity to the proposed development site, the potential for indirect effects on hunting amphibians, particularly at night, is given additional consideration and discussed below.

The proposed development site is approx. 80m from the large freshwater lake of Lough Ree. Visitors to the amphitheatre will be gathering in the car park and potentially the amenity grassland area with benches that occurs between the car park and the proposed outdoor theatre site, in the evenings and nights of events, during the summer months. Adults of common frog and smooth newt are likely to be moving through this amenity grass habitat at night during the summer months when they are most active foraging for food - but at a time when the events are also proposed to take place.

Therefore, even though there are no events directly proposed within the amenity grassland area, and it does not hold breeding habitat, it holds foraging habitat. In addition, the high value breeding habitat for these species

edge of the proposed development. This area occurs along the border of the proposed development area; however, a 10m buffer / root protection zone will be put in place for the entirety of the construction phase. This buffer will be installed previous to any works beginning on site, and the boundary indicated to onsite staff via simple fencing cordoning off the area. This will prevent encroachment of footfall, machinery or soil spill to this ecologically sensitive area for the duration of the construction phase. A suitably experienced **Ecological Clerk of Works** shall be assigned to the proposed development for the duration of the construction phase to ensure that the above measure is implemented and enforced for the duration of the proposed works.

which immediately surrounds this grassland means that amphibians are much more likely to be moving through this amenity grassland area in search of food at night — and are therefore at higher risk from indirect impacts of the significant increase in footfall (of 500 max persons) to this area each evening/night that a given event is taking place. Thus, mitigation is required to reduce significant impacts to local common frog and smooth newt populations regarding pressures from visitor pressures to the proposed site as a result of the proposed development.

9.1 Adverse Effects likely to occur from the project (post mitigation)

Standard construction and operational mitigation measures are proposed. These would ensure that water entering Lough Ree, is clean and uncontaminated. However, given the proximity of numerous sensitive receptors, it should be noted that the early implementation of ecological supervision on site at initial mobilisation and enabling works is seen as an important element to the project, particularly in relation to the implementation of surface water runoff mitigation.

"There are hydrological and hydrogeological connections between the proposed site and Lough Ree SAC and SPA via surface water run off sources through the karst limestone bedrock within the area. Lough Ree is designated for several species and habitats that are sensitive to pollution via groundwater. Therefore, there is a direct pathway for potential effects via surface run off from earthworks, siltation, dust, cement, in the construction phase through groundwater connectivity with Lough Ree SAC and SPA. There will be use of permeable gravel in the operational phase allowing rainwater to percolate, and there will be no wastewater or mains water services installed in the operational phase of the proposed development.

No wintering SCI species were recorded utilising any habitat types within the proposed development site. Considering this, and the habitat types recorded there in, it is considered that the proposed site is of negligible value for SCI species and thus there is no pathway for effect for SCI species regarding loss of habitat foraging or roosting habitat within the proposed development site.

Considering the proximity of the proposed development to Lough Ree SPA, the level of flight activity by various SCI species recorded above the proposed development site, and the nature of the operational phase, there are potential pathways for noise disturbance to SCI species as a result of the proposed development in the operational phase. Bird populations can be sensitive to noise disturbance24, depending on the species, time of year, type of noise etc. (with research ongoing)25. However, a noise assessment conducted by Allegro Acoustics (2025) of the current baseline ambient noise levels during the daytime and evenings at the proposed site, showed the current ambient LAeq levels at the proposed site range from 44 to 63 dB LAeq with most above 58 dB LAeq (Table 5.1). As this is the current baseline at the site, it is expected that faunal species utilising or crossing the site on a regular basis are habituated to ambient noise level of 55dB." – 5.1. Source-pathway-

receptor model, Appropriate Assessment Screening Report & Natura Impact Statement, CAAS

10. Site Information

10.1 Roles and Responsibilities

The roles and responsibilities of the personnel involved in the construction works are outlined in the table below. It will, however, be necessary that all personnel involved in the project are responsible for ensuring the requirements of the CEMP are followed.

Table 7. Roles and Responsibilities of the personnel involved in the development of the project.

Responsibilities		
Longford County Council will have overall responsibility for the compliance with the CEMP. They will		
appoint staff and contractors to deliver the various elements of the development and oversee works carried		
out on site.		
Contractors will be hired to carry out all works on site. Works carried out will be overseen by deBlacam and		
Meagher, and on a day-to-day basis by the site manager. All contractors on site are required to comply with		
all elements of the CEMP.		
The Site Manager will be responsible for the day-to-day management of the site including compliance of all		
personnel with the CEMP, in addition to Health and Safety, Environmental and Quality elements. The Site		
Manager is responsible for ensuring that all people on-site are provided with relevant information		
concerning environmental protection. The Site Manager will be responsible for overseeing any		
environmental monitoring programmes, carrying out site environmental inspections and audits as		
necessary, and will co-ordinate the environmental monitoring programme. All records of incidents and		
environmental issues will be collated and maintained by the site manager. The Site Manager will also be		
responsible for reviewing all risk assessment method statements and ensuring an appropriate programme		
of Tool Box talks are developed and effectively communicated. The site manager will be responsible for		
overall waste management issues arising from the project. These would include; Implementation and		
monitoring of waste minimisation, segregation and safe disposal measures and Dissemination of waste		
reduction and waste management procedures to all relevant personnel on site.		
Noise specialists will be appointed to oversee mitigation measures on site and to act as liaison with the		
County Council.		
Environmental Clerk of works to be present on site during construction and on continual contact with the		
site manager.		
All staff and subcontractors have the responsibility to comply with the CEMP including environmental		
procedures on site to minimise environmental impacts, avoid pollution on-site, including noise and dust, and		
to respond quickly and effectively to an incident to avoid or limit environmental impacts. All incidents must		
be reported to the Site Manager immediately.		

10.2 Training and Raising Awareness

As part of site induction for all personnel, a copy of the CEMP will be provided to and discussed with all onsite staff. This would include discussing the elements outlined in the CEMP including sensitive receptors on site and measures in place to mitigate impacts on these receptors.

As part of Tool Box talks, relevant elements of the CEMP will be discussed particularly when working in areas with sensitive receptors e.g. near the watercourse or, where there is potential to impact sensitive receptors on site. Training records of all personnel on site will be reviewed and copies held centrally. This is particularly important for those operating excavators, other heavy machinery and with environmental certification to deal with incidents on site.

11. Emergency Procedures

The risk of spilling fuel is at its greatest during refuelling of plant. All refuelling of major plant and equipment will take place on an impermeable surface within a designated area of the site compound. The vehicles and equipment will not be left unattended during refuelling. Spill kits and hydrocarbon absorbent packs will be stored in this area and operators will be fully trained in the use of this equipment.

Diesel pumps and similar equipment will be placed on drip trays to collect minor spillages or leaks. All equipment must be checked regularly.

Fuel, oil, and chemical storage will be sited within a bund of adequate capacity. The bund must be located at least 10 metres away from drains, ditches, excavations, and other locations where it may cause pollution. All materials will be stored in accordance with the manufacturer's instructions. Epoxy mortars and chemical based materials / sealants will be stored in secure containers with relevant warnings shown on the storage unit. Spill kits will be located adjacent to storage areas and used in the event of spillages.

12. Invasive species

No invasive species that could impact on the movement of soil on or off site were noted.

Under Regulation 49(2) of the European Communities (Birds and Natural Habitats) Regulations 2011, save in accordance with a licence granted under paragraph (7), any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place specified in relation to any plant which is included in Part 1 of the Third Schedule shall be guilty of an offence.

Materials containing invasive species such as Japanese Knotweed are considered "controlled waste" and, as such, there are legal restrictions on their handling and disposal. Under Regulation 49(7) of the European Communities (Birds and Natural Habitats) Regulations 2011, it is a legal requirement to obtain a license to move "vector materials" listed in the Third Schedule, Part 3.

One invasive flora species listed in the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 has been recorded by the NBDC within the 10km square (Tetrad – N06) in which the proposed development site is located; Japanese Knotweed (Fallopia japonica). However, no invasive species of concern were noted as present during the site walkover.

The risk of invasive species being introduced onto the site during the construction phase of the project is considered to be high, with large imports of materials with the potential to contain invasive flora species. Soils excavated during construction works would be stockpiled and re-used for site levelling.

To ensure that no invasive species are inadvertently introduced through soil importation to the site, the following measures will be implemented:

- Source Verification: All soil will be sourced from certified suppliers who can provide documentation confirming that the material is free from invasive species and contaminants.
- Inspection and Testing: Soil will be visually inspected and, where necessary, tested for the presence of
 invasive plant seeds, pathogens, or invertebrates before being transported to the site.

- Transport Controls: Soil will be transported in sealed or covered containers to prevent spillage and contamination during transit.
- On-Site Management: Soil will be stored in designated, contained areas on-site to prevent spread and will be used promptly to minimize exposure.
- Monitoring and Response: The site will be monitored post-import for any signs of invasive species
 establishment, with a rapid response plan in place should any be detected.
- Landscaping seed mixes / planting will be designed by Landscape Architect and advised by ecologist to
 ensure no introduction of invasive species.

These steps will help ensure compliance with biodiversity protection standards and minimize ecological risk.

13. Relevant Legislation and Guidelines

The key legislation which will be adhered to during the proposed project are defined as follows:

- CIRIA, (2001), Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors, (C532) Construction Industry Research and Information Association;
- CIRIA (2002) Control of water pollution from construction sites: guidance for consultants and contractors (SPI56) Construction Industry Research and Information Association
- CIRIA (2005), Environmental Good Practice on Site (C650); Construction Industry Research and Information Association
- BPGCS005, Oil Storage Guidelines;
- Eastern Regional Fisheries Board, (2006), Fisheries Protection Guidelines: Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites;
- CIRIA 697, The SUDS Manual, 2007; and
- UK Pollution Prevention Guidelines (PPG) UK Environment Agency, 2004.
- C532 Control of water pollution from construction sites: guidance for consultants and contractors;
- C648 Control of water pollution from linear construction projects;
- SP156 Control of water pollution from construction sites guide to good practice;
- NRA's 'Guidelines for the Crossing of Watercourses during Construction of National Road Schemes (NRA, 2005);
- BS 5228: 2009+A1: 2014 Code of practice for noise and vibration control on construction and open sites (Parts 1 and 2)
- BS 5837:2012 Trees in relation to design, demolition and construction -Recommendations

14. Conclusion

This CEMP has been submitted to show Longford County Council's commitment to Environmental Management of the proposed project. This CEMP has outlined the environmental principles that will be adopted to ensure that potential environmental impacts and health and safety issues associated with the construction processes are effectively managed, minimised and / or eliminated. The plan details the roles and responsibilities of the applicant, the site manager, project manager and site workers and how these controls are to be implemented. The CEMP will require regular updating and monitoring throughout the construction period to ensure potential risks are adequately managed throughout the construction works.

15. References

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