APPENDIX 4-2

ENVIRONMENTAL MANAGEMENT PLAN

Planning and Environmental Consultants

Environmental Management Plan

Lomaunaghbaun Quarry, Lomaunaghbaun, Tuam, Co. Galway

DOCUMENT DETAILS

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Project Title:	**Lomaunaghbaun Quarry, Lomaunaghbaun, Tuam, Co. Galway**
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Planning and Environmental Consultants

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1. INTRODUCTION

This Environmental Management Plan (EMP) has been prepared by MKO for the proposed sand quarry at Lomaunaghbaun. Tuam, Co. Galway. The proposed development includes the extraction, processing and distribution of sand, site access works and all associated site infrastructure.

This EMP has been prepared as part the planning application for the proposed development and will provide the environmental management framework to be adhered to during the site enabling works and operational phases of the proposed development. The document also incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur. The EMP has been informed by and takes account of the accompanying documents which have been prepared for the proposed development.

All measures identified in this Environmental Management Plan, which will be finalised subsequent to any permission granted and updated prior to operations at the site will include all mitigation measures identified to be adhered to during the pre-commencement and operational phases of the proposed development.

The EMP to be prepared by the appointed contractor will be a single, amalgamated document that can be used during the initial construction and operational phase of the project, as a single consolidated point of reference relating to all operational, environmental and drainage requirements for the Planning Authority and contractors alike. The EMP may evolve over further iterations as the works progress, but at all times must meet or exceed the standards and requirements set out in this document.

1.1 Scope of the Environmental Management Plan

This report is presented as a guidance document for the management of activities and materials (waste and non-waste) generated during the site enabling works, operational phase and following reinstatement. It clearly outlines the mitigation and monitoring measures that are required to be adhered to in order to prevent adverse impacts upon the environment in an appropriate manner.

The report is divided into five sections as outlined below:

- **Section 1** provides a brief introduction as to the scope of the report.
- **Section 2** outlines the Site and Project details, detailing the targets and objectives of this plan along with providing an overview of methodologies that will be adopted throughout the project.
- **Section 3** sets out details of the environmental controls on site such as noise and dust controls.
- **Section 4** sets out a fully detailed implementation plan for the environmental management of the project outlining the roles and responsibilities of the project team. The Emergency Response Plan to be adopted in the event of an emergency in terms of site health and safety and environmental protection is also included in this section.
- **Section 5** outlines the proposals for reviewing compliance with the provisions of this report.

2. SITE AND PROJECT DETAILS

2.1 Site Location and Development Description

The proposed development site is located within the townland of Lomaunaghbaun in north-east County Galway. The town of Tuam is located approximately 8.6km to the south-west and the village of Clonberne is located approximately 4.7km to the east. ITM coordinates for the centre of the site are X 552253, Y 756481.

Current land use at the subject site comprises agricultural activities in the form of extensive grazing. The site is subdivided by hedgerows, treelines and stone walls. The topography of the site is undulating in nature. The boundaries of the site are comprised of hedgerows, treelines and stone walls. The site is accessed via an existing gateway which is adjacent to the local L2232 road which runs in a north-south direction parallel to the site's eastern boundary.

The site is bounded by agricultural land to the north, west and south. The L2232 road bounds the site to the east and agricultural land lies beyond. The landscape around the proposed development site is characterised by one-off housing. Land use in the area is primarily agricultural with some areas of forestry and quarrying operations.

Initial construction works for the proposed works at the site will be minimal and will primarily be site enabling works. It is estimated that the site enabling works for the proposed development will take 2 to 3 months to complete.

Site enabling works will include:

- Preparation of site.
- Creation of new access point and road reprofiling works.
- Pouring of concrete for refuelling area foundation and foundation for processing plant and associated components;
- Construction of new drainage network and fuel/oil interceptor at refuelling area;
- Internal roadway installation; and
- Installation of a weighbridge and wheelwash and wastewater holding tank.

Minor excavations will be required for the installation of drainage pipework. It is proposed that excavated soil material will be reused onsite for the construction of berms around the site boundary.

It is anticipated that site enabling works will be carried out during the following working hours:

- 07:00 – 20:00 Monday to Saturday
- Closed Sunday, Bank Holiday, and other Public Holidays.

The above hours are also applicable to the operational phase of the Proposed Development.

The activities at the site during the operational phase will primarily be comprised of the excavation, washing, storage and distribution of sand. A sand processing plant will be installed in the south-east section of the site which will be comprised of the following components:

- Feed Hopper,
- Screen Box,
- Conveyors,
- Sand Dewatering Unit,
- Settlement Tank
- Silt Buffer Tank,

- Recycled Water Holding Tank,
- Filter Press
- Crusher,
- Generators and Control Panels.

Other ancillary components of the proposed development will include site office, weighbridge and wheel wash. These will be located in the south-eastern section of the site.

The proposed sand quarry will be excavated in three phases. As site phasing map is outlined in Figure 2-1 below and in Section 4.4 of the EIAR.

Map Legend

- Phase 1
- Phase 2
- Phase 3
- EIAR Site Boundary

Drawing Title
Site Phasing

Project Title
Lomaunaghbaun Quarry

Drawn By	Checked By
EC	TM
Project No.	Drawing No.
211034	Figure 2-1
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3. ENVIRONMENTAL MANAGEMENT

3.1 Introduction

Environmental management and their respective controls are addressed in this section. Management in relation to protection of water quality, dust, noise, traffic, and invasive species are outlined further below.

3.1.1 Protecting Water Quality

There are no watercourses within or adjacent to the Proposed Development site boundary. The nearest surface water feature to the site is the Dunblaney Stream (EPA Code: 30D34 – Order 1) which is at its closest to the site approximately 605 metres to the east. Levalley Lough is located approximately 2.7km to the south.

Prior to the commencement of any subsequent operational activities, the necessary mitigation measures will be put in place to ensure that no silt laden water runoff generated at the site will flow to nearby watercourses or groundwater thus ensuring the protection of surface water during the both the site enabling works and operational phase. This will involve confirming the location of all existing services and delineating between drainage systems. Surface waters will be managed to ensure the prevention of run off from areas where excavation occur does not result in silt laden water entering the existing storm water network. Excavated spoil and soil material will be reused within the confines of the site to create berms adjacent to the site boundary. The berms will be sealed with the back of an excavator bucket to reduce the risk of run-off during prolonged periods of rainfall.

Waters will not be discharged directly to any existing surface water sewers or drains. Particular emphasis will also be placed on hazardous materials entering the surface water management system as well as spill or leaks of fuel oils. Section 4 provides an Emergency Response Plan for dealing with spillages which may result in adverse environmental effects.

Surface and storm water generated during the operational phase will be captured by the proposed drainage network within the confines of the site boundary.

3.1.1.1 Prevention Pollution Control Measures

The proposed development site does not contain any mapped watercourses and no watercourses were identified within the site boundary during site visits. However, the following measures will be put in place to prevent the transportation of silt laden water or pollutants from entering the wider environments including watercourses or groundwaters during the operational phase:

- Any requirement for temporary fills or stockpiles will be damped down or covered with polyethylene sheeting as required to avoid sediment release associated with heavy rainfall.
- Excavated spoil/overburden will be stockpiled and contained entirely within the confines of the site boundaries. It is anticipated that all excavated spoil will be used within the site for the construction of berms along the site boundary.
- In the event of encountering groundwaters during excavation, the excavation will be de-watered using a pump equipped with a silt bag on the discharge pipe, if necessary, to capture any silty material prior to subsequent natural percolation to ground.
- All diesel or petrol pumps required onsite will be operated within bunded units
- As extraction works advance there may be a small requirement to collect and treat surface water within the site. This will be completed using perimeter swales at low points around the extraction areas, and if required water will be pumped from the swales into

silt bags prior to overland discharge allowing water to percolate naturally to ground. Overland discharge, if required, will be located within the confines of the site boundary.
- Discharge onto ground will be via a silt bag which will filter any remaining sediment from the pumped water. The entire discharge area from silt bags will be enclosed by a perimeter of silt fencing.
- The design, installation and maintenance of an on-site drainage system can prevent sediment related pollution of nearby surface waters.

3.1.1.2 Cement Based Products Control Measures

Due to the nature of the Proposed Development, large quantities of concrete are not required. However, small areas of concrete will be required to be poured at the site during the enabling works to allow for the installation of elements of the processing plant, weighbridge, wheelwash, refuelling area etc.

The complete washing out of concrete trucks will not be permitted at the site. Suppliers will be directed back to their own facility to complete the washout process.

The following mitigation measures are proposed to avoid release of cement leachate from the site during the site enabling works.

- No batching of wet-cement products will occur on site.
- Ready-mixed supply of wet concrete products and where possible, emplacement of pre-cast elements, will take place. Where possible, pre-cast elements for concrete works will be used.
- No washing out of any plant used in concrete transport or concreting operations will be allowed on-site.
- No discharge of cement contaminated waters to the drainage system or directly to any artificial drain or watercourse will be allowed.
- Use weather forecasting to plan dry days for pouring concrete.
- Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event.

3.1.1.3 Refuelling; Fuel and Hazardous Materials Storage

The following measures are proposed to avoid release of hydrocarbons at the site during the operational phase:

- Minimal refuelling or maintenance of site vehicles or plant will take place on site. Off-site refuelling should occur at a controlled fuelling station;
- Refuelling or maintenance of machinery will not occur within 50m of any watercourse, spring, groundwater well or borehole. Dedicated refuelling areas will be used during the works where practicable;
- Fuel absorbent material and pads will be available in the event of any accidental spillages. Only designated trained and competent operatives will be authorised to refuel plant on site and no refuelling operations shall be left unattended on site. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations.
- Fuels volumes stored on site should be minimised. Any fuel storage areas will be bunded appropriately for the fuel storage volume for the time period of the operational phase and fitted with a drainage system and an appropriate oil interceptor.
- The plant used should be regularly inspected for leaks and fitness for purpose;
- The emergency response plan for the site has been provided within this EMP (Section 4) which sets out the procedure for dealing with accidental spillages will be maintained throughout the operational phase of the Proposed Development.

3.1.1.4 Spill Control Measures

In the event of minor spills and leaks from road vehicles and onsite plant, the following steps provide the procedure to be followed in the event of any significant spill or leak.

- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill.
- If possible, cover or bund off any vulnerable areas where appropriate such as drains or watercourses.
- If possible, clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the Site Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action and further investigate the incident to ensure it has been contained adequately.
- The Site Manager will notify the appropriate regulatory body such as Galway County Council, if deemed necessary.

3.1.2 Dust Control

Construction dust can be generated from many on-site activities such as excavation and backfilling. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e., soil, sand, etc and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather. Traffic movements also have the potential to generate dust as trucks and excavators travel along the designated haul routes within the confines of the site. The measures below will also prevent construction debris arising on the public road network.

- Any site roads/site entrances with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions.
- The designated public roads outside the site and along the main transport routes to the site will be regularly inspected by Site Management for cleanliness and cleaned as necessary.
- Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind.
- Water misting will be utilised on-site as required to mitigate dust in dry weather conditions.
- The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary.
- Daily inspection of the site to examine dust measures and their effectiveness.

3.1.3 Noise and Vibration Control

The operation of plant and machinery, including site vehicles, is a source of potential noise impacts. Noise levels shall be kept below those levels specified in the National Roads Authority – “Guidelines for the Treatment of Noise and Vibration in National Roads Schemes” or such further limits as imposed by Galway County Council. The proposed development shall comply with BS 5228 “Noise Control on Construction and open sites Part 1: Code of practice for basic information and procedures for noise control.” During the operational phase, any plant introduced to the site will not be excessively

noisy. Exhaust and silencer systems on plant will be maintained in a satisfactory condition and operating correctly at all times. Defective silencers will be immediately replaced.

Proposed measures to control noise include:

- Training will be provided by the Site Management to drivers to ensure smooth machinery operation/driving, and to minimise unnecessary noise generation.
- Plant used onsite will be maintained in accordance with manufacturer specifications. In particular, exhaust silencers will be maintained in a satisfactory condition.
- Communication through plant horns will be prohibited.
- Unnecessary revving of truck engines will be prohibited.
- Site haul roads will be maintained in a satisfactory condition, and free from surface defects that may generate rattles in empty truck bodies.
- Machinery not in active use will be shut down.

It is recommended that drivers of heavy goods vehicles (HGVs) associated with the development will extend due care and courtesy to other road users. Excessive engine revving will be avoided at all times.

Deviation from standard working hours will only be allowed in exceptional circumstances and when other relevant third parties i.e., nearby homeowners have been notified and have agreed to works taking place during such time periods.

3.1.4 Traffic Management Proposals

The proposed traffic management measures to be adopted are outlined in detail in Section 14 of the EIAR. Some of these measures are summarised below. Please note that this is not an exhaustive list, and it will be updated accordingly in consultation with the local authority.

- Warning signs / Advanced warning signs will be installed at appropriate locations in advance of the site access locations.
- Vehicles which will be entering the site will be instructed to use only the approved and agreed means of access; and movement of site vehicles will be restricted to these designated routes.
- Appropriate vehicles will be used to minimise environmental impacts from transporting material, for example the use of dust covers on HGVs carrying dust producing material.
- Speed limits of vehicles to be managed by appropriate signage, to promote low vehicular speeds.
- Parking of site vehicles will be managed and will not be permitted on public road, unless proposed within a designated area that is subject to traffic management measures and agreed with Galway County Council.
- All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. All scheduled maintenance will not be carried out on the public highway.

The site for the Proposed Development will be accessed via a new entrance on to the adjacent public road at the eastern boundary of the site.

3.2 Invasive Species

There were no invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 of 2011) were recorded within or adjacent to the proposed development site.

Should invasive species be encountered as part of a pre-commencement survey prior to the commencement of enabling works and operational phases, an invasive species management plan will

be prepared. The treatment and control of invasive alien species will follow guidelines issued by the National Roads Authority – The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads (NRA 2010) and the Environment Agency (2013) – The Knotweed Code of Practice: Managing Japanese Knotweed on Development Sites (Version 3, amended in 2013). To prevent the introduction of any invasive species to the site best practice control methods are summarised in the following sections.

3.2.1 Site Management

There are no third schedule invasive species onsite however, in the event that an invasive species is encountered, an invasive species management plan will be prepared, and the following measures will be adopted. Careful preparation of the site and planning of the works is crucial to successful prevention of introduction of invasive species. The following list of guidelines, which is not exhaustive, shall be followed by all on-site personnel. Only those who have been inducted into biosecurity measures on-site may enter the contaminated zones within the works areas.

3.2.2 Establishing Good Site Hygiene

- A risk assessment and method statement must be provided by the Contractor prior to commencing works.
- Fences will be erected around areas of infestation, as confirmed by test pits, and warning signs shall be erected.
- A designated wash-down area will be created, where power-washed material from machinery can be contained, collected and disposed of with other contaminated material. This area will contain a washable membrane or hard surface.
- Stockpile areas will be chosen to minimise movement of contaminated soil.
- Stockpiles will be marked and isolated.
- Contaminated areas which will not be excavated will be protected by a root barrier membrane if they are likely to be disturbed by machinery. Root barrier membranes will be protected by a layer of sand above and below and topped with a layer of hardcore.
- The use of vehicles with caterpillar tracks within contaminated areas will be avoided to minimise the risk of spreading contaminated material.
- Any material that is imported onto any site will be verified by a suitably qualified ecologist to be free from any invasive species listed on the 'Third Schedule' of Regulations 49 & 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I 477 of 2011). This will be carried out by searching for rhizomes and plant material.
- Any soils or subsoils contaminated with invasive species will be sent for disposal to an authorized waste facility.
- A suitably qualified ecologist will be on site to monitor and oversee the implementation of invasive species remedial works.

Plant and equipment which is operated within an area for the management of materials in contaminated areas will be decontaminated prior to relocating to a different works area. The decontamination procedures will take account of the following:

- Personnel may only clean down if they are familiar with the plant and rhizome material and can readily identify it.
- Decontamination will only occur within designated wash-down areas.
- Vehicles will be cleaned using stiff-haired brush and pressure washers, paying special attention to any areas that might retain rhizomes e.g., wheel treads and arches.
- All run-offs will be isolated and treated as contaminated material. This will be disposed of in already contaminated areas.

3.2.3 Waste Management

Waste generated during the construction phase will be comprised predominantly of packaging materials for the various components of the processing plant and other associated items. Waste generated during the operational phase will be predominantly related to canteen waste generated as a result of the workers at the site. There may also be a minor requirement to remove materials such as fuel containers or items generated as a result of repairs and maintenance carried out on plant. It should be noted that volumes of waste materials generated at the site during the construction and operational phase of the Proposed Development is anticipated to be low. The potential for re-use of materials such as excavated soil/spoil will be high due to reuse for the installation of berms within the confines of the site and during site restoration.

The principles of the waste management hierarchy will be implemented at the site, and these are as follows:

- Prevention and minimisation
- Reuse of waste
- Recycling

Waste generated during the operational phase of the Proposed Development will be managed in a designated area where the various waste components will be segregated into a number of waste categories in accordance with a general waste segregation policy and placed into individual bins. These materials will be removed by authorised waste collection contractors for recycling and recovery at various licensed facilities for recycling, recovery or disposal. Waste will be subject to constant monitoring by site management to ensure that potential reusable and recyclable material is not being disposed of therein. Other waste mitigation measures which will be implemented at the site are as follows;

- All waste will be collected in skips and the site will be kept tidy and free of debris at all times.
- Waste oils and hydraulic fluids will be collected in leak proof containers and removed from the site for disposal or recycling. It is also essential that all empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996.
- All waste materials will be stored within the confines of the site, prior to removal from the site to a licensed waste facility.
- No wastewater will be discharged on-site during the construction or operational phase of the Proposed Development.

4. ENVIRONMENTAL MANAGEMENT IMPLEMENTATION AND EMERGENCY RESPONSE

4.1 Environmental Manager

The main contractor appointed to carry out the works on site during the construction and operational phases will be required to provide a level of supervision in the form of an Environmental Manager who will also fulfil the role of Waste Manager. Due to the scale of activity proposed for the site, this role can be adopted by a Site Manager/Foreman as part of their duties. In general, this Environmental Manager will maintain responsibility for monitoring the works and Contractors/Sub-contractors from an environmental perspective. The Environmental Manager will act as the regulatory interface on environmental matters by reporting directly to the client and liaising with Galway County Council and other statutory bodies as required. The duties of the appointed Environmental Manager are summarised as follows:

- Undertake inspections and reviews to ensure the works are carried out in compliance with the EMP.
- Monitor the implementation of the EMP, particularly all proposed/required Environmental Monitoring.
- Ensure proper mitigation measures are initiated and adhered to during both the construction and operational phase.
- Ensure adequate arrangements are in place for site personnel to identify potential environmental incidents.
- Ensure that details of environmental incidents are communicated in a timely manner to the relevant regulatory authorities, initially by phone and followed up as soon as is practicable by email.
- Support the investigation of incidents of significant, potential or actual environmental damage, and ensure corrective actions are carried out, recommend means to prevent recurrence and communicate incident findings to relevant parties.
- Identify environmental training requirements and arrange relevant training for all levels of site-based staff/workers; and

4.2 Environmental Monitoring

4.2.1 Dust Monitoring

Dust monitoring will be conducted using the Bergerhoff Gauge. One dust gauge will be placed at each of the dust monitoring locations as outlined in Figure 4-1 below. At the end of each month, the collection container shall be taken for analysis by an appropriately certified laboratory in order to determine the rate of dust deposition.

Results will be recorded with records being maintained on site and provided to the relevant authorities on request. An annual review of all data shall be conducted, and results will be submitted to the planning authority if requested.

Map Legend

- Dust Monitoring Locations
- EIAR Site Boundary

Drawing no.
Dust Monitoring Locations

Project Title
Lornaughabhbauna Quarry

Drawn By	Checked by
EC	OC/TM

PProject No.	Drawing No.
211034	Figure 4-1

Scale	Date
1:20000	2023.11.30

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4.3 Emergency Response Plan

4.3.1 Emergency Response

The Emergency Response Plan (ERP) is presented in this section of the EMP. It provides details of procedures to be adopted in the event of an emergency in terms of site health and safety and environmental protection. The site ERP includes details on the response required and the responsibilities of all personnel in the event of an emergency. This is a working document that requires updating throughout the various stages of the project.

4.3.2 Roles and Responsibilities

The chain of command during an emergency response sets out who is responsible for coordinating the response. The Site Manager will lead the emergency response which makes him responsible for activating and coordinating the emergency response procedure. In a situation where the Site Manager is unavailable or incapable of coordinating the emergency response, the responsibility will be transferred to the next person in the chain of command.

4.3.3 Initial Steps

In order to establish the type and scale of potential emergencies that may occur, the following hazards have been identified as being potential situations that may require an emergency response in the event of an occurrence.

Table 4-1 Hazard Associated with Potential Emergency Situations

Hazard	Emergency Situation
Construction Vehicles: Dump trucks, tractors, excavators, cranes etc.	Collision or overturn which has resulted in operator or third-party injury.
Abrasive wheels/Portable Tools.	Entanglement, amputation or electrical shock associated with portable tools.
Contact with services.	Electrical shock or gas leak associated with an accidental breach of underground services.
Fire	Injury to operative through exposure to fire.
Falls from heights including falls from scaffold towers, scissor lifts, ladders and roofs.	Injury to operative after a fall from a height.
Sickness	Illness unrelated to site activities of an operative e.g., heart attack, loss of consciousness, seizure.

In the event of an emergency situation associated with, but not restricted to, the hazards outlined in Table 4-1 the Site Manager will carry out the following:

- Establish the scale of the emergency situation and identify the number of personnel, if any, have been injured or are at risk of injury.
- Where necessary, sound the emergency siren/foghorn that activates an emergency evacuation on the site.
- Make safe the area if possible and ensure that there no identifiable risk exists with regard to dealing with the situation e.g., if a machine has turned over, ensure that it is in a safe position so as not to endanger others before assisting the injured.
- Contact the required emergency services or delegate the task to someone if he is unable to do so. If delegating the task, ensure that they follow the procedures for contacting the emergency services as set out in Section 4.2.6.
- Take any further steps that are deemed necessary to make safe or contain the emergency incident e.g., cordon off an area where an incident associated with electrical issues has occurred.
- Contact any regulatory body or service provider as required e.g., ESB Networks the numbers for which as provided in Section 4.2.6.
- Contact the next of kin of any injured personnel where appropriate. The procedure for this is outlined in Section 4.2.6.

4.3.4 Site Evacuation/Fire Drill

A site evacuation/fire drill procedure will provide basis for carrying out the immediate evacuation of all site personnel in the event of an emergency. The following steps will be taken:

- Notification of the emergency situation. Provision of a siren or foghorn to notify all personnel of an emergency situation.
- An assembly point will be designated in the construction compound area and will be marked with a sign. All site personnel will assemble at this point.
- A roll call will be carried out by the Site Security Officer to account for all personnel on site.
- The Site Security Officer will inform the Site Manager when all personnel have been accounted for. At this time the Site Manager will decide the next course of action which will be determined by the situation that exists at that time. The Site Manager will advise all personnel accordingly.

All personnel will be made aware of the evacuation procedure during site induction. The Fire Services Acts of 1981 and 2003 require the holding of fire safety evacuation drills at specified intervals and the keeping of records of such drills.

4.3.5 Environmental Emergency Response Procedure

4.3.5.1 Spill Control Measures

Every effort will be made to prevent an environmental incident during the operational phase of the proposed project. Oil/Fuel spillages are one of the main environmental risks that will exist on the proposed site which will require an emergency response procedure. The importance of a swift and effective response in the event of such an incident occurring cannot be over emphasised. The following steps provide the procedure to be followed in the event of such an incident.

- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill.
- If possible, cover or bund off any vulnerable areas where appropriate such as drains, watercourses or sensitive habitats.
- If possible, clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action.
- The Environmental Manager will inspect the site and will assist by providing any advice possible to ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring.
- The Site Manager will notify the appropriate regulatory body such as Galway County Council and Environmental Protection Agency (EPA) etc. if deemed necessary.

Environmental incidents are not limited to just fuel spillages. Therefore, any environmental incident must be investigated in accordance with the following steps.

- The Environmental Manager must be immediately notified.
- If necessary, the Environmental Manager will inform the appropriate regulatory authority. The appropriate regulatory authority will depend on the nature of the incident.
- The details of the incident will be recorded on an Environmental Incident Form which will provide information such as the cause, extent, actions and remedial measures that were used following the incident. The form will also include any recommendations made to avoid reoccurrence of the incident.
- If the incident has impacted on an ecologically sensitive receptor, such as a sensitive habitat, protected species or designated conservation site, (pSPA or cSAC), the Environmental Manager will liaise with an Ecologist.
- If the incident has impacted on a sensitive receptor such as an archaeological feature the Environmental Manager will liaise with the Project Archaeologist.
- A record of all environmental incidents will be kept on file by the Environmental Manager and the Main Contractor. These records will be made available to the relevant authorities such as Galway County Council and the EPA if required.

The Environmental Manager will be responsible for any corrective actions required as a result of the incident e.g., an investigative report, formulation of alternative construction methods or environmental sampling, and will advise the Main Contractor as appropriate.

4.3.6 Contacting the Emergency Services

4.3.6.1 Emergency Communication Procedure

In the event of requiring the assistance of the emergency services the following steps should be taken:

- Stay calm. It is important to take a deep breath and not get excited. Any situation that requires 999/112 is, by definition, an emergency. The dispatcher or call-taker knows that and will try to move things along quickly, but under control.
- Know the location of the emergency and the number you are calling from. This may be asked and answered a couple of times but do not get frustrated. Even though many emergencies call centres have enhanced capabilities meaning they are able to see your location on the computer screen they are still required to confirm the information. If for some reason you are disconnected, at least emergency crews will know where to go and how to call you back.
- Wait for the call-taker to ask questions, then answer clearly and calmly. If you are in danger of assault, the dispatcher or call-taker will still need you to answer quietly, mostly "yes" and "no" questions.
- If you reach a recording, listen to what it says. If the recording says your call cannot be completed, hang up and try again. If the recording says all call takers are busy, WAIT. When the next call-taker or dispatcher is available to take the call, it will transfer you.
- Let the call-taker guide the conversation. He or she is typing the information into a computer and may seem to be taking forever. There is a good chance, however, that emergency services are already being sent while you are still on the line.
- Follow all directions. In some cases, the call-taker will give you directions. Listen carefully, follow each step exactly, and ask for clarification if you do not understand.
- Keep your eyes open. You may be asked to describe victims, suspects, vehicles, or other parts of the scene.
- Do not hang up the call until directed to do so by the call taker.

All staff members will know the address and location of the site as it may be necessary to liaise with the emergency services on the ground in terms of locating the site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services.

4.3.6.2 Contact Details

Table 4-2 Emergency Contacts

Hazard	Emergency Situation
Emergency Services – Ambulance, Fire, Gardaí	999/112
Doctor – Grove Medical Centre	093 28498
Hospital – University Hospital Galway	091 524 222
ESB Emergency Services	1850 372 999
Bórd Gais Emergency	1850 20 50 50
Gardaí – Tuam Garda Station	093 70840
Health and Safety Coordinator - Health & Safety Services	TBC
Health and Safety Authority	1890 289 389

4.3.6.3 Procedure for Personnel Tracking

All operatives on site without any exception will have to undergo a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.

In the event of a site operative becoming involved in an emergency situation where serious injury has occurred, and hospitalisation has taken place, it will be the responsibility of the Site Manager or next in command if unavailable to contact the next of kin to inform them of the situation that exists.

4.3.6.4 Induction Checklist

Table 4-3 provides a list of items highlighted in this ERP which must be included or obtained during the mandatory site induction of all personnel that will work on the site. This will be updated throughout the various stages of the project.

Table 4-3 Emergency Response Plan Items Applicable to the Site Induction Process

ERP Items to be included in Site Induction	Status
All personnel will be made aware of the evacuation procedure during site induction.	
Due to the location of the site, it may be necessary to liaise with and assist the emergency services on the ground in terms of locating the site. This may involve providing an escort from a designated meeting point that may be located more easily by the emergency services. This should form part of the site induction to make new personnel and sub-contractors aware of any such arrangement or requirement if applicable.	
All operatives on site without any exception will have undergo a site induction where they will be required to provide personal contact details which will include contact information for the next of kin.	

5. COMPLIANCE AND REVIEW

5.1 Site Inspections and Environmental Audits

Routine inspections of activities will be carried out on a daily and weekly basis by the Site Manager/Environmental Manager as appointed by the applicant to ensure all controls to prevent environmental impact, relevant to the activities taking place at the time, are in place.

Environmental inspections will ensure that the works are undertaken in compliance with this Environmental Management Plan. Environmental site inspections will only be carried out by suitably trained staff.

5.2 Environmental Compliance

The following definitions shall apply in relation to the classification of Environmental Occurrences during the works:

Environmental Near Miss

An occurrence which if not controlled or due to its nature could lead to an Environmental Incident.

Environmental Incident

Any occurrence which has potential, due to its scale and nature, to migrate from source and have an environmental impact beyond the site boundary.

Environmental Non-Compliance

Non-fulfilment of a requirement and includes any deviations from established procedures, programs and other arrangements related to the EMP.

5.3 Corrective Action Procedure

A corrective action is implemented to rectify an environmental issue on-site. Corrective actions will be implemented by the Site Manager/Environmental Manager. Corrective actions may be required as a result of the following.

- Environmental Audits.
- Environmental Inspections and Reviews.
- Environmental Incidents; and,
- Environmental Complaints.

A Corrective Action Notice will be used to communicate the details of the action required to the main contractor. A Corrective Action Notice is a form that describes the cause and effect of an environmental problem on site and the recommended corrective action that is required. The Corrective Action Notice, when completed, will include details of close out and follow up actions.