CHAPTER 2

PROJECT DESCRIPTION

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ADDITIONAL INFORMATION

2.1 As outlined in Chapter 1 a planning application was submitted to Sligo County Council (Plan File Ref. No. 18/345 / ABP Ref. 305821-19) in August 2018 for similar development to that proposed as part of this application. In October 2019 Sligo County Council granted planning permission for the development (subject to 23 no. conditions). 2 no. third party appeals of the decision by Sligo County Council to grant permission for the proposed quarry development were made to An Bord Pleanala (ABP-305821-19). An Bord Pleanala refused permission for the proposed development on the 30th June 2020 for the 2 no. reasons – refer to Chapter 1 for further details.

2.2 In order to comprehensively address the reasons for refusal, and further comments contained within the An Bord Pleanala Inspectors Report a number of additional surveys / site investigations, field work and assessments have been carried out.

2.3 This Chapter 2 of the EIAR has been updated as follows:

- Description of the Existing Development has been updated to include the aggregate processing area located on the eastern side of the local road that bisects the site;
- Description of the Proposed Development has been updated to include:
    - recommencement of aggregate processing activities on the eastern side of the road, along with provision of a new double stack portacabin and associated wastewater treatment system;
    - any further information that was requested throughout the planning process during the previous application (Plan File Ref. No. 18/345 / ABP Ref. 305821-19);
    - the proposed surface water management plan for the aggregate processing area on the eastern side of the local road;
    - restoration proposals for the eastern side of the road.

EXISTING DEVELOPMENT

2.4 The site occupies ground with elevations ranging between -21m OD and 34m OD. The lower quarry floor is currently at -21 m OD, with the previous planning permission authorising extraction to -34.5m OD. The application area forms the existing quarry area, along with the associated aggregate processing area located on the eastern side of the local road that bisects the application site. The aggregate processing area occupies ground with elevations at c. 15 m OD.

2.5 The existing quarry does not currently have the benefit of planning permission due to the expiry of planning ref. 02/271. The quarry operation will, as before, comprise of the extraction of limestone using conventional blasting techniques. Material extracted from the quarry area will be processed within the quarry void using mobile processing plant and transported to the aggregate processing area for further processing using mobile plant. The materials will then be stockpiled, pending transport off-site to market.

2.6 Existing facilities at the site include the weighbridge & weighbridge office and a garage / workshop. These facilities are located within the processing area on the eastern part of the application site.

2.7 The cumulative impacts associated with the existing asphalt production plant at the site, located adjacent to the aggregate processing area, have been assessed in the relevant chapters of this EIAR.

2.8 Concrete production was historically carried out at the site by the previous owner and operator, CEMEX (ROI) Ltd. (Cemex). This activity ceased in 2014 and the concrete production plant located within the landholding is now obsolete. The applicant does not intend to undertake concrete production at the site and as such this activity has not been assessed as part of the cumulative impact assessment within the relevant chapters of the Environmental Impact Assessment Report that accompanies this planning application. The cumulative impact assessment includes the quarrying activities, processing activities on the eastern side of the application site and asphalt production activities.

PROPOSED DEVELOPMENT

Development Overview

Operational Phase (Limestone Extraction & Processing)

2.9 The proposed development being applied for under this current planning application is shown on **Figure 2-1** and is similar to that previously granted under Sligo County Council Ref. No 02/271 and will consist of:

- Recommencement of quarry operations within the previously permitted quarry extraction area (c. 10.9ha);
- Deepening of the previously permitted quarry area by 2 no. extractive benches from c. -21m OD to -50m OD;
- Recommencement of aggregate processing (crushing and screening) within the existing processing area, located to the east of the local road that bisects the site;
- The provision of a settlement lagoon (c. 2,830m2);
- The provision of 2 no. wheelwashes;
- The Provision of a double stacked portacabin office;
- The Provision of a wastewater treatment system;
- Additional stockproof / trespass proof boundary fencing;
- All within an application area of c. 22.5 Ha.

2.10 Materials extracted from the quarry will be processed within the quarry void and transported to the existing aggregate processing area located on the eastern side of the Local road for further processing and stockpiling, pending transport off-site to market – refer to Figure 2.1.

2.11 There will be no lateral extension of the quarry void as part of this application, with all future extraction to take place by deepening of the existing quarry floor. Similarly, all development on the eastern side of the road will be wholly within the lands where activities commenced in the 1950's.

2.12 The proposed development is consistent with the policies set out in the National Planning Guidelines for the sector; the Regional Planning Guidelines and the Sligo County Development plan which recognise the requirement for:

- A secure supply of construction aggregates is necessary for the continued development of the region;
- Proven aggregate reserves need to be safeguarded for future extraction;
- 'Best environmental management practice' to be implemented within quarry developments.

Restoration (Reinstatement to Nature Conservation Habitat Areas)

2.13 Upon completion of extractive operations, it is proposed to restore the quarry area on the western site of the local road to natural habitat after-uses. The processing area on the eastern side of the local road will also be restored to natural habitat after-uses – refer to Figure 2.2. This proposed after-use is compatible with the applicant's Biodiversity Policy (copy provided in Appendix 1.1).

2.14 Where feasible, restoration of exhausted and redundant areas of the application site will be carried out at the earliest opportunity. However, it is envisaged that the majority of restoration proposals will be carried out after extractive operations at the site have ceased.

Aggregate Reserve Assessment

2.15 The total recoverable reserve of limestone from within the proposed extraction area is assessed at c. 2 million tonnes – refer to Table 2-1. These reserves lie below the quarry floor and will be extracted by deepening the existing floor by 2 no. quarry benches that will be approx. 15 metre in height.

Duration of Extraction

2.16 An outline of the proposed extraction plan and the final ground level contours is shown in Figure 2-1. Cross-sections through the final landform are shown in Figure 2-3.

Table 2-1
Material Quantities

Material	Quantity
Topsoil / Overburden	0 m^3
Limestone	2 Million Tonnes

2.17 The duration of quarrying activities at the application site will largely be dictated by the rate at which approximately 2 million tonnes of limestone is extracted from the site. There are many factors which will influence this, including, but not limited to the:

- Prevailing economic climate and related construction industry output;
- Distance of construction projects from the facility (and scale of activity).

2.18 It is noted that there are a large number of construction related projects proposed for Sligo Town in the Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region, in which the town is identified as having the vision and capacity to be a Regional Growth Centre of scale. These projects include housing (RPO 3.7.37 and RPO 3.7.38), road infrastructure (RPO 3.7.40, RPO 3.7.41, RPO 3.7.43 and RPO 3.7.54).

2.19 The ambitious plans and projects set out in the RSES, and referenced above, are reliant on a secure supply of aggregates and associated quarry products. At the current time the region is limited to only one operational quarry of sufficient scale to supply the region. The proposed recommencement of quarry operations at this site are required to ensure a continued reliable and competitive supply of quarry products to enable development and completion of the plans and projects set out in the RSES.

2.20 In light of these and other variables, calculation of output rates and duration is not an exact science. It is anticipated that the annual extraction rate will range from 150,000 – 300,000 Tonnes. (Note: under planning permission PL02/271, an average annual extraction rate of 300,000 tonnes was permitted).

2.21 In consideration of the above, a planning permission duration of 10 years is sought by the applicant.

Site Screening

2.22 The application site has been in existence since the 1950's and is an established part of the landscape. The processing area is surrounded on all sides by existing mature vegetation that prevents views into this part of the landholding from public roads in the vicinity of the site – refer to computer generated flyover included on the CD enclosed with this EIAR.

2.23 Existing views into the quarry and associated aggregate processing area on the eastern side of the local road would be unchanged by the proposed recommencement of quarrying operations and deepening of the existing quarry void as no lateral extension of the development is proposed – refer to EIAR Chapter 13 (Landscape).

Removal of Topsoil and Overburden Soils

2.24 Within the planning application boundary, an area of 10.9 hectares has been used for the extraction of limestone and therefore has been completely stripped of overburden and topsoil materials.

2.25 There will be no removal of topsoil / overburden required to facilitate the recommencement of operations and deepening of the existing quarry or to recommence processing activities on the eastern part of the landholding. The only removal of topsoil / overburden that will be undertaken, will be the removal of material to facilitate the installation of the proposed settlement lagoon. This material will be stored at the location shown on Figure 2.2.

Site Drainage

2.26 A hydrological / hydrogeological assessment has been carried out taking into consideration the existing water regime at the quarry site and the aggregate processing area located to the east of the local road. Mitigation measures are proposed to eliminate and/or minimise the potential impacts, if any, on surface water and groundwater – refer to Chapter 7 – Water.

Stability of the Quarry

2.27 Industry standard slope angles, bench heights, and bench widths will be used for extraction operations at the site.

Method of Extraction

2.28 Blasting will continue to be used within the quarry area to fragment the stone prior to processing (crushing / screening etc.).

2.29 The type of explosive to be used at the quarry is Kemex 70. Kemex 70 is supplied by Irish Industrial Explosives (IIE) and is a waterproof, pumped emulsion product, which is designed for wet conditions. It is a site manufactured explosive whereby non-explosive materials are transported to site in a specifically designed pump truck. The materials are blended on-site and pumped directly into the blast holes by trained and experienced operators.

2.30 IIE provides blasting services to all of the applicant's quarry operations throughout Ireland. IIE operates an ISO9000 Quality Management System and its occupational health and safety management system is based on OHSAS 18001. IIE carries out all blasting activities in accordance with its Quarry Blasting Procedure. IIE's blasting procedure controls the loading of the explosive product into the drill holes and two points of initiation are used in each drill hole to ensure that initiation occurs, and the explosive product is fully consumed.

2.31 A copy of the applicants blasting procedures can be found in Appendix 2.1.

Processing Methods

2.32 The processing of the extracted rock, into aggregate products, will consist of crushing and screening by mobile processing plant within the quarry void. Materials will then be transported to the aggregate processing area on the opposite side of the local road for further processing using mobile plant, followed by stockpiling prior to transport off-site to market or for use in the asphalt production activities located adjacent to the aggregate processing area.

Quarry Working Hours

2.33 The proposed working hours for the development are 0700-1800hrs Monday to Friday and 0800-1400hrs on Saturdays. The quarry will not operate on Sundays or Bank Holidays, except in emergency situations.

Employment

2.34 The proposed development will provide employment of up to 6 people directly on-site, in addition to a number of indirect employees such as crushing contractors, HGV drivers, maintenance contractors, etc.

SITE INFRASTRUCTURE

Site Access

2.35 The quarry and the processing area are located on opposite sides of the local road. Material from the quarry will be transported by dump trucks to the processing area via an existing access that forms a crossroads with the access to the quarry. Historically this is how the quarry has operated.

2.36 There is a separate access to the aggregate processing area used mainly by HGV traffic delivering processed material to market. This access has been improved with road widening and upgrade works being made under Plan File Ref. No. 02/271: Condition no. 9.

2.37 All HGV traffic will access and egresses the site via the weighbridge and the proposed wheelwash (with associated closed lagoon water system).

Site Security / Landscape and Boundary Treatment

2.38 Lockable gates are provided at all entrances to the site. Please refer to Planning Drawing 3, which outlines the existing boundary treatment at the application site.

2.39 It is proposed to reinforce and replace sections of the existing fencing along the north-western and western boundaries, identified as Sections 1 & 2 on Planning Drawing 3.

2.40 It is proposed to replace the entire fence along the south-eastern boundary, (identified as Section 5 on Planning Drawing 3). This fence will be replaced to replicate the fencing provided at Sections 1 & 2.

2.41 There is significant vegetation located along part of the northern boundary, identified as Section 3 on Figure 1.2. A replacement stockproof fence was erected along Section 3 in October 2017.

2.42 Existing stockproof fencing will be reinforced and replaced, as required along the eastern boundary, identified as Section 4 on Planning Drawing 3.

2.43 Remotely monitored CCTV is in place at the site.

Site Roads, Parking and Hardstanding Areas

2.44 All HGVs utilising the quarry will be confined within the Applicant's landholding. HGVs access the site from the Local road that is c. 400 meters south of the R287 regional road and travel west over a section of paved internal roadway within the application site.

2.45 Adequate car parking provision for employees and visitors is provided at the existing weighbridge office as indicated in Figure 2.1.

Weighbridge

2.46 In order to monitor and record the amount of material exiting the quarry, all HGV traffic will be directed across the existing weighbridge, the location of which is indicated on the site infrastructure layout in Figure 2.1.

Wheelwash

2.47 It is proposed to install a wheel wash system within the existing quarry in the location shown on Planning Drawing 4 and Figure 2.1. A second wheel wash will be installed before the weighbridge located within the aggregate processing area to the east of the quarry. Both wheelwash systems will be closed loop systems, meaning that the water used to clean the HGVs will be recycled and reused rather than being discharged – refer to Planning Drawing 8 for wheelwash design drawings.

Offices and Ancillary Facilities

2.48 Existing facilities at the site include the weighbridge & weighbridge office and a garage / workshop. These facilities are located within the processing area on the eastern part of the application site.

2.49 It is proposed to replace the existing weighbridge office with a new double stacked office (with associated wastewater treatment system) at the location shown on Figure 2.1. Refer to Planning Drawing 9 for Portacabin details.

Quarry Ancillary Facilities and Activities

2.50 Ancillary manufacturing facilities at the site, located adjacent to the processing area, include asphalt production.

2.51 As outlined above, concrete production was historically carried out at the site by the previous owner and operator, CEMEX (ROI) Ltd. (Cemex). This activity ceased in 2014 and the concrete production plant located within the landholding is now obsolete. The applicant does not intend to undertake concrete production at the site and as such this activity has not been assessed as part of the cumulative impact assessment within the relevant chapters of the Environmental Impact Assessment Report that accompanies this planning application. The cumulative impact assessment includes the quarrying activities, processing activities on the eastern side of the application site and asphalt production activities.

Utilities and Services

2.52 Electrical power is currently provided to the application site via mains supply. Electricity will provide the principal source of energy for office lighting and heating.

2.53 Site based staff at the application site will be contactable by mobile phone, landline and email and broadband connections to the site office are provided via a mobile network.

2.54 It is proposed to install a new wastewater treatment system that will service toilets from the proposed double stacked portacabin office – refer to Site Characterisation report submitted with the Planning Application documentation, and Figure 2.1 showing the proposed location. Details of the proposed system (Oakstown BAF 6 PE wastewater treatment system) are provided with the Site Characterisation report.

2.55 A supply well in the processing area will be used for water supply (see **Figure 7-1**); water from the well will be used for wheelwashes, dust suppression and non-potable use in the office canteen and toilets.

2.56 Potable water will be provided to the site via a water cooler dispenser system.

2.57 Given the lack of combustible waste materials at this site, it is considered highly unlikely that a fire will break out during quarry operations. A range of fire extinguishers (water, foam and CO_2) will be maintained at the site office to deal with any localised small-scale fires which might occur. Additional fire-fighting capacity can be provided by storing water in a mobile bowser on unsealed hardstand areas around the infrastructure area.

Lighting

2.58 Sufficient lighting will be provided at the site to ensure safe operations during winter periods.

2.59 Security lighting will comprise low level spot lighting and will be directed towards the vehicle loading area and operational area, for safety purposes.

Fuel & Oil Storage

2.60 There will be no bulk fuels stored at the application site. Existing fuel storage tanks present at the site (identified on Figure 1.2) are redundant and will not be used by the applicant as part of the recommencement of operations.

2.61 All fuels required to serve mobile plant and machinery will be brought to site on an as required basis by local fuel suppliers. A number of spill kits will be provided at the site. In addition, it is proposed to provide a dedicated hardstand area, with associated hydrocarbon interceptor, at the site for refuelling activities – refer to Figure 2.1.

2.62 The only hydrocarbons to be held at the site are small quantities of lubricating oils / hydraulic oils, which will be stored in the existing workshop / store, located within the aggregate processing area - refer to Figure 2.1 enclosed. The volume of oils / chemicals to be held at the site will be minimal and they will be stored within the existing bunded areas provided in the workshop. Any oils not stored within the bunded area, will be held on dedicated spill trays. Dedicated storage bins will also be provided in the workshop for oil filters and oily rags.

WASTE MANAGEMENT

Extractive Waste Management

2.63 Almost all products and by-products arising from the aggregate processing have commercial value. Any waste materials from the site are stored, collected, recycled and/or disposed of in accordance with any requirements of Sligo County Council.

General Waste Management

2.64 Lagan Materials Ltd. are a member of the Irish Concrete Federation and commits themselves to the principles of the Federations Environmental Code. The code states:-

2.65 "ICF members will minimise production of waste and where appropriate consider its beneficial use including recycling. They will deal with all waste in accordance with the relevant legislation and other controls in place, including using waste contractors with valid Waste Collection Permits"

2.66 An Environmental Monitoring / Management Plan for the quarry site is enclosed in Appendix 2.3. Specific Depot Procedures are provided in the Environmental Monitoring / Management Plan, which deal with waste management (Depot Procedure DP003) and fuel / oils & chemical storage (Depot Procedure DP006).

2.67 Potential waste produced and the measures used to control it are described as follows -

- **Scrap Metal** – these materials are chiefly produced from the maintenance of plant equipment and can cause a nuisance if allowed to build up in an uncontrolled manner. A designated scrap metal area will be demarcated on site and the build-up of scrap will be controlled by the regular removal by licensed scrap metal dealers.

- **Used Oil / Oil Filters** – any used oil filters that may arise from servicing of plant equipment will be held within the workshop/store in dedicated storage bins pending removal by a licensed waste contractor. Used oils will be stored in a bunded tank within the workshop/store, pending removal by a licensed waste contractor. Dedicated storage bins will also be provided in the workshop for oil filters and oily rags.

- **Used Batteries** – end of life batteries will be stored in a dedicated battery box in the workshop/store, pending removal from site by a licensed waste contractor.

- **Canteen Waste** – domestic waste generated at the offices / canteen will be collected by a licensed waste collection contractor.

ENVIRONMENTAL CONTROLS

General

2.68 Extraction, processing and ultimately restoration activities at the application site require a number of environmental controls to eliminate or minimise the potential nuisance to the public arising from the extraction and processing operations. The environmental control measures in place at the site are outlined in the relevant EIAR Chapters.

2.69 The previous operations at the site were regulated by conditions attaching to Sligo County Council Ref. No 02/271 planning permission.

2.70 Any additional control measures, over and above those already in place and/or outlined below, which may be instructed on foot of the proposed planning application, will also be implemented.

Bird Control

2.71 As the process of limestone extraction and aggregate production is free of putrescible (food / kitchen) waste, site activities are unlikely to attract scavenging birds such as gulls and crows for the duration of works. Accordingly, it is not intended to implement any specific bird control measures at the site as is the case at present.

Traffic Control

2.72 As the planning application relates to the recommencement / deepening of the existing quarry operation and recommencement of aggregate processing within the existing processing area, the proposed development will continue to utilise the existing site entrances and established haul routes.

Litter Control

2.73 As the proposed development will be largely free of litter, the daily operational activities are unlikely to give rise to problems with windblown litter. Accordingly, there is no requirement to implement any specific litter control measures at the site.

2.74 In the unlikely event that any litter waste is identified, it will be immediately removed off-site to an authorised waste disposal or recovery site.

Odour Control

2.75 As the limestone extraction activities at the site are not biodegradable and do not therefore emit odorous gases, site activities do not give rise to odour nuisance. No odour control is required.

Vermin Control

2.76 As the proposed development is free of putrescible (food / kitchen) waste, on-site activities will not attract vermin for the duration of the extraction or subsequent restoration operations. Accordingly, no specific vermin control measures are required.

Fire Control

2.77 In the unlikely event that a fire does occur, the local fire station in Sligo town will be contacted and emergency response procedures will be implemented. Fire extinguishers (water and foam) are provided at all offices to deal with any small outbreaks which may occur.

Surface Water and Groundwater Management

Quarry Extraction Area

2.78 The current water management within the quarry involves pumping a combination of rainwater and groundwater from the quarry floor to the Aghamore Stream. This is an interim measure agreed with Sligo County Council as there is no activity on site and no sources of potential water pollution remain within the quarry void (refer to EIAR Chapter 7).

2.79 It is proposed that all surface water & storm water run-off from within the quarry area will be directed to a separate quarry sump for dewatering stormwater, as shown on Figure 2.1. All water from this stormwater sump will be directed to the proposed settlement lagoon, prior to discharge off site to the Aghamore Stream. No surface water run-off or stormwater from the quarry area will bypass the proposed settlement lagoon.

2.80 It is proposed that all groundwater inflows into the quarry void will be intercepted as it enters the excavation and directed to a separate quarry sump for dewatering clean groundwater (refer to Figure 2.1) via a system of cut-off drains located along the toe of the excavation faces. These drains will be maintained separate from the quarry floor. Water from the dewatering sump will be discharged directly to the Aghamore Stream via a sediment trap – refer to Figure 2.1 for proposed location.

2.81 As stated in Chapter 7: Paragraph 7.133 of the EIAR groundwater inflows into the quarry are delineated by calcium-carbonate deposits on the quarry faces (yellow-white staining). Inflows tend to be diffuse through a network of bedding and joint planes, with more seepage in some areas than others (fracture controlled). On this basis it will be a relatively straightforward task to establish a system of groundwater interception drains as the dominant point sources of groundwater inflows to the quarry void will be readily identifiable.

2.82 All water (stormwater and groundwater inflows) pumped from the quarry void will be discharged in compliance with the requirements of discharge licence ref no DL(W)151 and in accordance with the emission limit values specified under the discharge licence.

Proposed Settlement Lagoon

2.83 It is proposed to install a settlement lagoon of c. 2,830m^2 (see area calculations in Chapter 7) in advance of quarrying activities recommencing at the site to treat stormwater run-off pumped from the quarry floor before being discharged to the Aghamore Stream. The settlement lagoon will have a water depth of 1.5m, a minimum freeboard of 0.5m and will be lined to prevent leakage. Interceptors will be installed close to areas of potential risk such as the hardstand area and refuelling station.

2.84 A Construction Environmental Management Plan (CEMP) that outlines how potential adverse impacts on the water environment that may arise during the construction of the proposed settlement lagoon will be managed is provided in Appendix 2.2. Planning Drawing 7 shows the proposed settlement lagoon plans and details. Planning Drawing 7 also provides details on the proposed settlement lagoon liner.

2.85 The discharge point from the settlement lagoon will remain at the current location (see **Figure 2.1**). A reno mattress will be provided at the discharge point to prevent scouring of the stream bed (as recommended by IFI – refer to EIAR Chapter 1: Table 1.1).

2.86 Any sediment contained in the discharge waters will be collected from surface-water run-off only. Primary settlement of any sediment within the discharge waters will take place within the quarry sumps on the quarry floor. Due to the nature of the proposed development, and proposed water management system, it is not considered that there will be any significant build-up of sediment within the settlement lagoon.

2.87 Desludging of the lagoon will be carried out periodically (typically bi-annually, or as required). Sediment will be excavated from the settlement lagoons, dried out in thin layers prior to use in the restoration of the previously extracted quarry area – refer to Figure 2.2.

2.88 The quarry operator will conduct daily documented checks of the lagoon to ensure there are no signs of leaks or instability. The lagoons will also be inspected every 2 years by a geotechnical engineer as part of the geotechnical assessment of the quarry.

Processing Area to the East of the Local Road

2.89 Rainfall across the processing area infiltrates the permeable subsoils (sands), which underlie this area of the site (refer to EIAR Chapter 7: Plates 7-3 and 7-4, Appendix 7-8).

2.90 There is currently no point discharge arising from the processing area of the site (located to the east of the public road) as this area of the site is also inactive. Any historical discharges arising from the processing area would have originated from the wash-water associated with concrete production activities. This plant has not operated since the site was purchased by the applicant from Cemex (ROI) Ltd. in 2014 and is now obsolete. The applicant does not intend to recommence the production of concrete products at the site.

2.91 There will be no point discharges arising from the processing area of the site at any point in the future. Consequently, there will be no requirement for the treatment and disposal of run-off and wastewater from the processing area of the site.

2.92 Any surface water run-off arising from the processing area will continue to naturally infiltrate to ground. These lands are underlain by sand and gravel material with a significant unsaturated zone – refer to Chapter 7.

2.93 To mitigate the potential for cumulative impact in combination with runoff from the area where the obsolete concrete production plant is located, a berm will be constructed across the open perimeter of the processing area where runoff from a collection sump overflows the Aghamore Stream – refer to Figure 2.1 for location. The berm will prevent any direct discharge to surface water from the processing area. Ponded runoff in the collection sump will be pumped to a soakaway nearby and allowed to infiltrate to ground.

Dust Generation and Control

2.94 In dry, windy weather conditions, site activities may give rise to dust blows across and beyond the existing or planned development site areas.

2.95 The incidence of fugitive dust outside of the operation is reduced by some of the mobile crushing and screening plant being located within the quarry void. Generation of fugitive dust is generally limited to periods of very low rainfall (refer to Chapter 8 – Air Quality). Dust generation occurs from three main sources.

- Point sources – such as operating plant and machinery.
- Line sources – such as roads and conveyors.
- Dispersed Sources– such as quarry floors and stockpiles.

2.96 In order to control dust emissions, the following measures will be implemented:-

- Water will be sprayed from a tractor drawn bowser on dry exposed surfaces and stockpiles (paved roads, unsealed haul roads and hardstand areas);
- Provision of a fixed sprinkler system along the internal roads;
- Dust blows at the existing site are largely screened by the side walls of the existing quarry void;
- Areas of bare or exposed soils will, insofar as practicable, be kept to a minimum;
- The amount of dust or fines carried onto the public road network will be reduced by periodic sweeping of internal paved site roads and surrounding public roads as required;
- Emission of fugitive dust from machinery such as mobile processing plant will be minimised by utilising dust suppression and by locating such plant within the quarry area, where possible.

2.97 Dust deposition monitoring will be carried out as part of the environmental monitoring programme (refer to conditions 19 & 22 of the previous planning permission). Monitoring results will be submitted to Sligo County Council on an annual basis - refer to EIAR Chapter 8.

2.98 Mitigation measures will be provided in accordance with the DoEHLG (2004) guidelines for the sector and EPA (2006), refer to EIAR Chapter 8.

Noise Generation & Control

2.99 The sources of noise located within the planning application area are primarily related to machinery / plant operation.

2.100 The potential for noise generation from the quarry extraction area is reduced by the mobile crushing and screening plant being located within the quarry void. This means that the potential for noise generation from activities associated with the operation of the plant such as movement of vehicles and maintenance has been reduced – refer to Chapter 10.

2.101 In addition to the above the following good house-keeping measures are put in place in order to reduce noise emitted from plant and machinery as much as possible:

- All machinery used will be CE certified for compliance with EU noise control limits;
- The machinery will be regularly maintained. This includes regularly checking any muffler systems and servicing or replacing as required. It also ensures any loose or damaged panels or covers that suppress noise is fixed or replaced immediately;
- If there are further noise-reducing modifications available for any machinery, they will be fitted wherever practical (e.g. rubber-decked screens, rubber chute linings etc.)
- Haul road grades are kept as low as possible (</= 1:10) to reduce engine / brake noise from heavy vehicles.

2.102 Mitigation measures will be provided in accordance with the DoEHLG (2004) and EPA (2006) guidelines for the sector.

2.103 A noise monitoring programme will be implemented at the site and routine noise monitoring will be carried out as part of the environmental monitoring programme, refer to Section 2.106 below. Monitoring results will be submitted to Sligo County Council on an annual basis or in accordance with any timeline specified in any planning permission issued.

Blasting Control

2.104 Blasting mitigation measures will form part of the Environmental Management System for the quarry site. These measures relate to blasting procedures such as quantity of explosive and charge-hole spacing along rock face. Measures at the quarry will include:

- Geological considerations in blast design.
- There will be no blasting outside the hours of 11:00 and 18:00 during Monday to Friday and none taking place at the weekend or public holidays.
- Optimise blast design along the rock-face with adequately spaced charges.
- Minimise air overpressure through proper blast design, spacing and timing of multiple charges.
- Inform nearby residents on day prior to planned blasting schedule using house-calls, written note/signage at entrance (or combination). A warning siren will be sounded prior to a blast taking place.
- It is proposed to carry out a breeding bird survey at the quarry during the first season of quarry activity and then use the results to inform the quarry operator to avoid or reduce certain activities in areas during the breeding season – refer to EIAR Chapter 5.

ENVIRONMENTAL MONITORING

General

2.105 When previously operational the site had an established environmental monitoring programme on site – refer to Condition No. 22 imposed under Plan File Ref. No. PL02/271.

2.106 Water, noise, dust and blast monitoring will be carried out on a regular basis, to demonstrate that the development is not having an adverse impact on the surrounding environment.

2.107 Refer to Appendix 2.3 for the Environmental Monitoring Plan for the site.

Dust Monitoring

2.108 Dust deposition monitoring will be carried out at the application site. Dust monitoring locations shall be reviewed and revised where necessary. The results of the dust monitoring will be submitted to Sligo County Council on a regular basis for review and record purposes.

Noise Monitoring

2.109 Noise monitoring will be carried out at the application site. Noise monitoring locations shall be reviewed and revised where necessary. The results of the noise monitoring will be submitted to Sligo County Council on a regular basis for review and record purposes.

Water Monitoring

2.110 The site was granted a Trade Effluent Discharge Licence (TEDL) from Sligo County Council in December 2011 (DL(W)139) to discharge water from the quarry to the Aghamore Stream, subject to conditions. This licence was reviewed by Sligo County Council, and an updated licence was granted on the 24th January 2020 – refer to EIAR Chapter 7: Appendix 7.3.

2.111 A programme of surface water monitoring is currently ongoing at the site, which includes sampling of the quarry discharge, sampling of the Aghamore Stream upstream and downstream of the discharge and monitoring of discharge flows and streamflows in the Aghamore Stream. The full environmental monitoring programme will resume on site prior to activities recommencing, as notified to Sligo County Council in 2015 (see EIAR Chapter 7).

PROPOSED FINAL RESTORATION

Proposed Restoration Scheme

2.57 The restoration scheme for the planning application area is shown on the restoration plan Figure 2-2.

2.58 The application area will be restored to a natural habitat, which is one of the beneficial after uses listed in the EPA Guidelines: 'Environmental Management in the Extractive Industry' (2006). This will be achieved by the following measures:

- The application area will be left for natural recolonisation by locally occurring grass and shrub/scrub species and the quarry void will fill with water.
- All existing boundary fences and hedgerows will be retained to ensure that the site is secure.
- All plant and machinery will be removed from the quarry void.

2.59 The restoration works will be carried out in accordance with the EPA Guidelines (2006).

Site Management and Supervision

2.112 The Applicant will clearly define the management responsibility for the site restoration work and will ensure that this person has the necessary information (from the planning application) and authority to manage the whole restoration process. Relevant staff will be briefed on the scheme and will be adequately supervised / controlled. A system of record keeping for the key restoration activities will be put in place.

Long Term Safety and Security

2.113 Existing hedges surrounding the development will be gapped up and thickened where required. These combined with fencing and the secure and locked entrance gates to the development will prevent unauthorised third party access.

Long Term Surface Water and Groundwater

2.114 Surface water in the processing area on the eastern side of the local road will continue to percolate to ground. Surface water in the quarry area will percolate to ground or be directed to the water body within the void created by quarrying – refer to EIAR Chapter 7.

2.115 On completion of extraction, a lake will be formed in the quarry void as groundwater returns to its natural level.

Decommissioning of Plant and Machinery

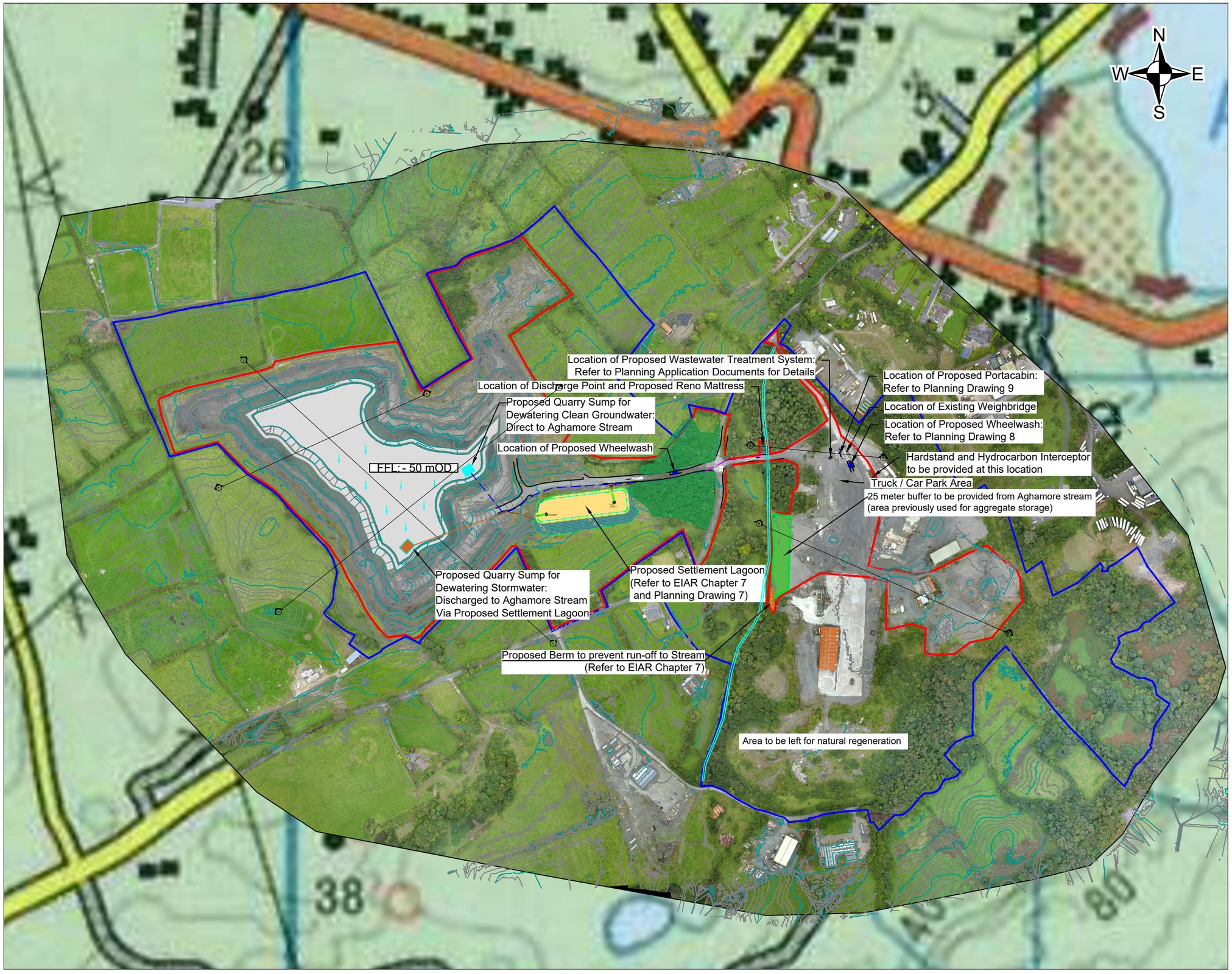
2.116 Redundant structures, plant equipment and stockpiles will be removed from site on permanent cessation of extraction activity. Machinery and buildings will either be utilised by the applicant on other sites or be sold as working machinery or scrap.

2.117 As part of the overall decommissioning process, all oil storage and septic / effluent treatment tanks within the existing site will be removed from the site by a licensed waste contractor. Therefore, there will be no potential for fuel, oil or sewage to cause long-term water pollution following completion of extraction activities.

Aftercare and Monitoring

2.118 No aftercare or monitoring is required for the restoration proposals for the application area.

FIGURES



NOTES

1. ORDNANCE SURVEY IRELAND LICENCE NO. CYAL50167032 (C) ORDNANCE SURVEY IRELAND / GOVERNMENT OF IRELAND
2. AERIAL PHOTOGRAPHY CARRIED OUT BY SLR CONSULTING SEPTEMBER 2020

LEGEND

APPLICATION AREA (c. 22.5 Ha.)

CROSS SECTION LOCATION

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LIMESTONE QUARRY AND AGGREGATE PROCESSING YARD
AGHAMORE NEAR, AGHAMORE FAR AND
CARROWNAMADDOO TOWNLANDS, CO. SLIGO

PROPOSED SITE LAYOUT

FIGURE 2.1

Scale: 1:5,000 @ A3

Date: MAY 2021

501.00584.00019.FIGURE 2.1 PROPOSED SITE LAYOUT.REV.0.dwg

PROPOSED LANDSCAPE MITIGATION AND RESTORATION SCHEME

The existing quarry and processing area at Aghamore Near, Aghamore Far and Carrownamaddoo townlands in Co. Sligo are substantially screened by existing dense boundary vegetation, as well as the undulating topography of the site and area immediately surrounding it. The aim of the landscape mitigation works is to retain all existing screening vegetation, as well as augment this further, with additional native woodland infill and hedge planting.

The benificial afteruse proposed for the site, in line with the 2006 EPA Guidelines - Environmental Management in the Extractive Industry (Non-Scheduled Minerals), is as a **Natural habitat**, consisting of areas of grassland, woodland areas and hedgerows, areas for natural regeneration and a wetland area, created by the quarry void, which will naturally flood on cessation of the extraction works.

The proposed works will also be of a high biodiversity value.

Landscape Mitigation Planting:
The proposed landscape mitigation planting works will be carried out on re-commencement of the proposed development in the locations indicated below and as per the planting details to the right.

Restoration Works:
The restoration works will be carried out on completion of all extraction works. At this point the quarry and processing areas will be cleared of all structures, plant and machinery.
The settlement lagoon to the east of the quarry void will be decomissioned.
All bare and relatively level areas surrounding the quarry void will be broken up, leveled and seeded with a suitable native wildflower mix.
The upper quarry faces and benches, which will ultimately retain above the water level within the quarry void, will be left for natural regeneration with locally occurring grass and scrub species.
The processing area will also be broken up, with the aim to create varied ground conditions, including heaps of stones and shallow dips, which will temporarily fill with water. This will create multiple habitats for local wildlife species. The area will then be left for natural regeneration with locally occurring species,.

PLANTING DETAILS

Tree/Shrub Species: Native species present in the local landscape were chosen. These species will also be of biodiversity value.

Planting Spec:
Native Woodland Infill Mix (as per the table to right) to be planted at 2m centres (i.e. 1 plant/4m²; approx. 3,200m² in total = 800 plants). To be planted randomly with no more than 4-6 plants of the same species in one group and to be supplied with spiral guards.
Native Hedge Mix (as per the table to right) to be planted in two staggered rows with row 0.4m apart and plants within rows 0.4m apart(i.e. 2.5 plants/m; approx. 800m in total = 2,000 plants). Transplants to be planted randomly with no more than 4-6 plants of the same species in one group. Pedunculate oak to be planted every 8m and single staked and maintained as hedgerow trees.

Plant Handling & Protection: All plant handling, planting and establishment works will be carried out in accordance with current best practice and will take place in the appropriate planting season (e.g. bareroot planting: November to March only) and in favourable weather conditions. The planting will be carried out by a suitably qualified landscape contractor. All plants to be protected with spiral guards or alternatively with rabbit proof fencing.

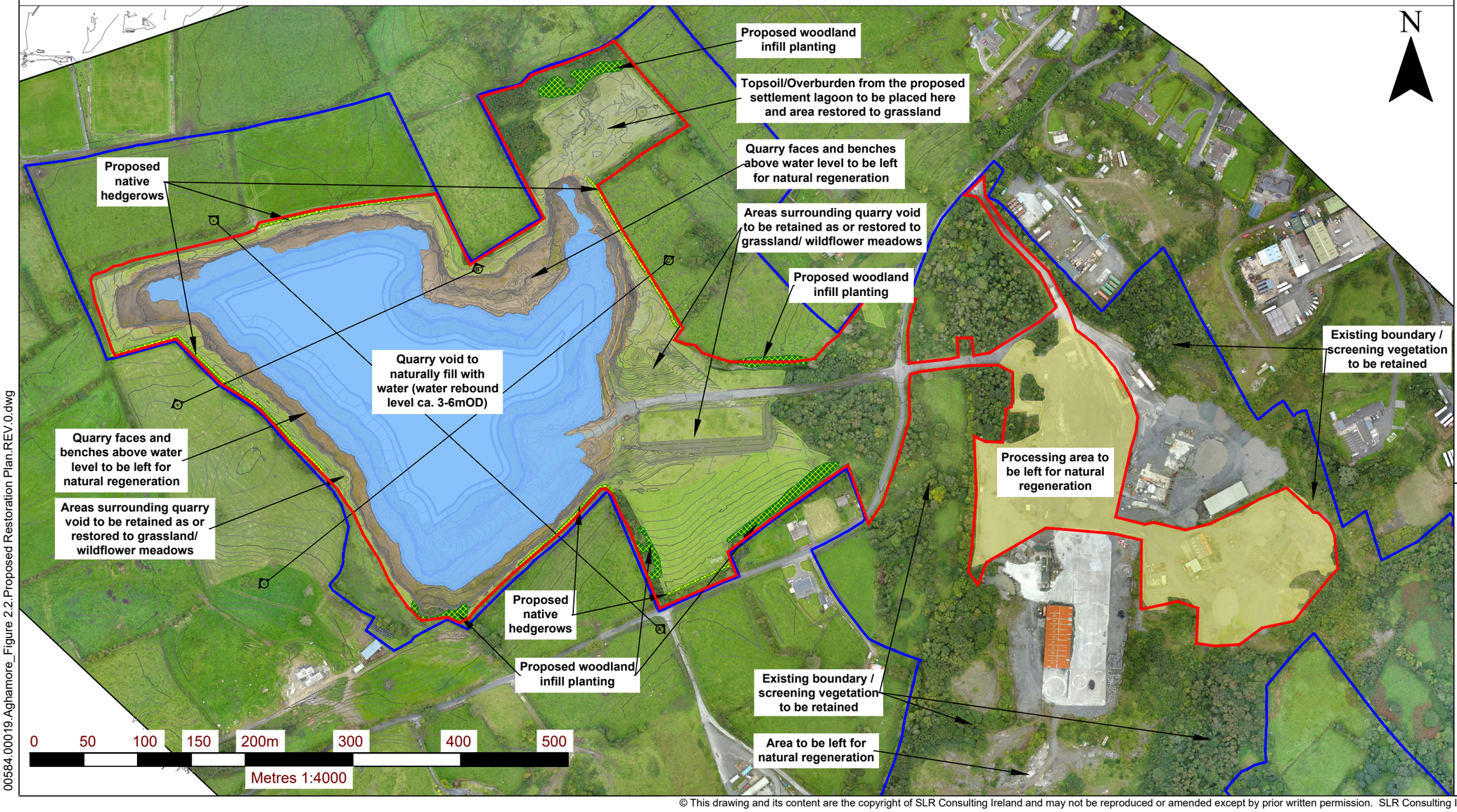
Aftercare: Establishment maintenance will be carried out for 2 years following the planting works (minimum 3 maintenance visits per year; i.e. spring, summer and autumn). This will include weed control, replacement planting where required and the adjustment/removal of tree ties and spiral guards.

NATIVE WOODLAND INFILL MIX

No.	*Plant Name*	*Common Name*	*Height (cm)*	*Age*	*%*
Transplants					
160	Alnus glutinosa	Common alder	60-90	1+1	20
160	Betula pubescens	Downy birch	60-90	1+1	20
160	Crataegus monogyna	Hawthorn	60-90	1+1	20
160	Prunus spinosa	Blackthorn	60-90	1+0	20
160	Quercus robur	Pedunculate oak	60-90	1+1	20

NATIVE HEDGEROW MIX

No.	*Plant Name*	*Common Name*	*Height (cm)*	*Age*	*%*
Transplants/Feathered Trees					
800	Crataegus monogyna	Hawthorn	60-90	1+1	40
600	Prunus spinosa	Blackthorn	60-90	1+0	30
100	Quercus robur	Pedunculate oak	175-200	2xTR	05
500	Salix cinerea	Sally	60-90	1+0	25



NOTES

1. Aerial Photography flown **September 2020** by SLR Consulting Ireland.
2. Ordnance Survey Ireland Licence No. **CYAL50167032** © Ordnance Survey & Government of Ireland.

LEGEND

- LAND INTEREST BOUNDARY
- PLANNING APPLICATION AREA
- EXISTING ACCESS ROAD TO BE RETAINED

MITIGATION MEASURES
(TO BE IMPLEMENTED ON RE-COMMENCEMENT OF THE PROPOSED DEVELOPMENT)

- Existing woodland/ scrub vegetation to be retained.
- Proposed woodland infill planting to augment existing woodland/ scrub vegetation
- Proposed hedgerows to fully enclose the quarry site with vegetation.

RESTORATION MEASURES
(TO BE IMPLEMENTED ON COMPLETION OF ALL EXTRACTION WORKS)

- Upper quarry faces and benches to be allowed to regenerate naturally with locally occurring grass and scrub species (note: some of the flatter areas have already developed into areas of grassland).
- Quarry void to be left to naturally fill with water, creating a permanent waterbody (water rebound level ca. 3 - 6 mOD).
- Existing grassland areas surrounding the quarry void to be retained and areas of existing bare ground (including proposed settlement lagoon) to be restored to grassland/ wildflower meadows
- Hardstanding areas within processing yard to be cleared (including plant/ structures), broken up and left for natural regeneration with locally occuring grass and scrub species.

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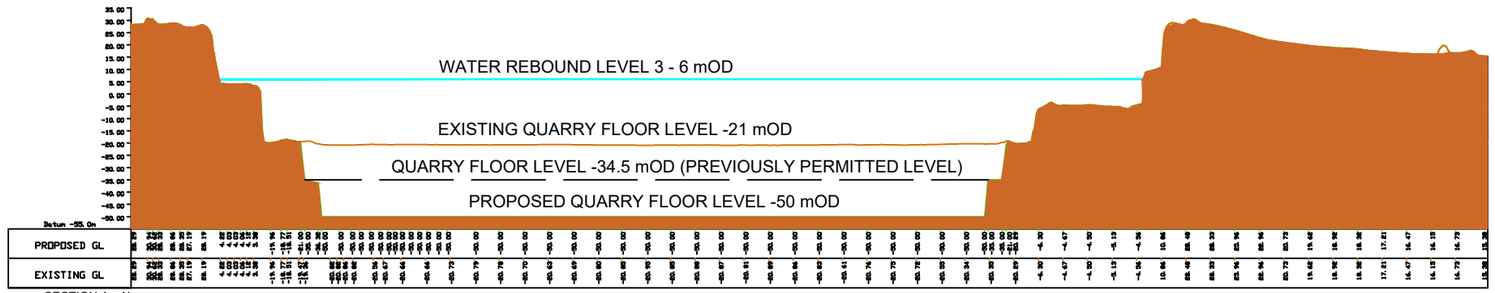
LANDSCAPE MITIGATION AND RESTORATION PLAN

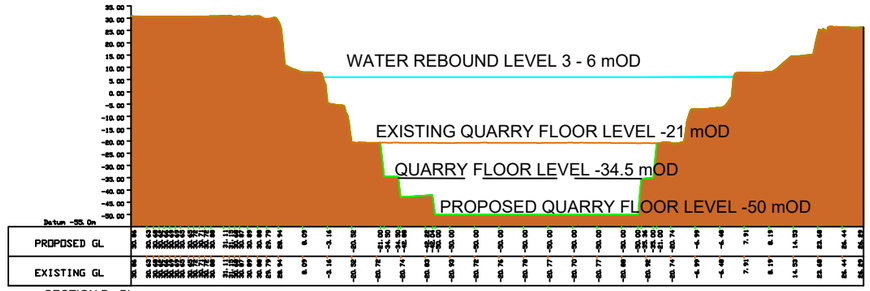
FIGURE 2-2

Scale	Date
1:4,000 @ A3	MAY 2021

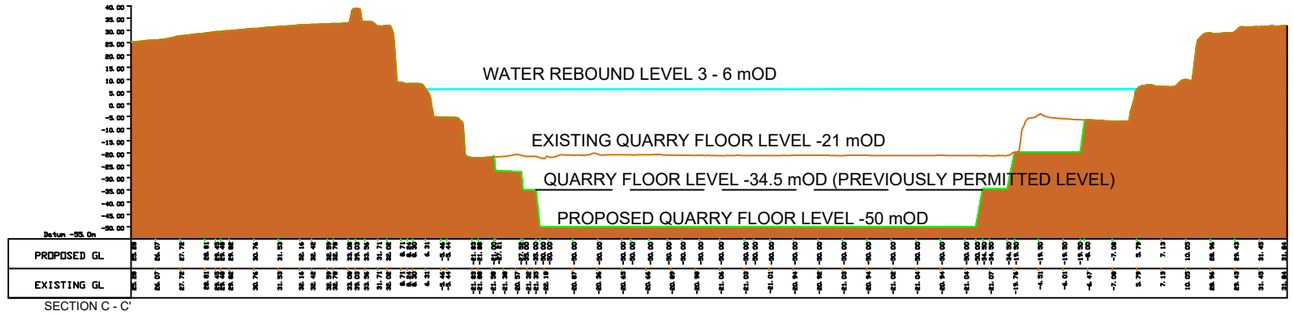
00584.00019.Aghamore_Figure 2.2 Proposed Restoration Plan.REV.0.dwg



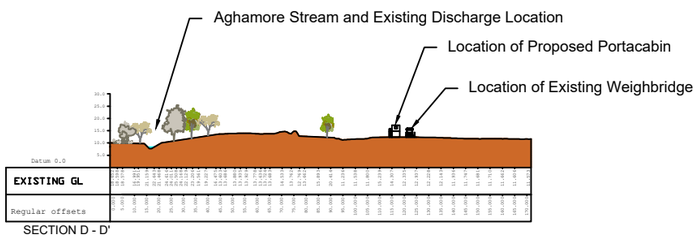
SECTION A - A'



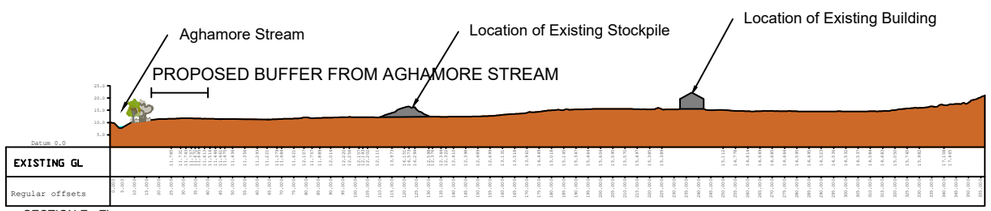
SECTION B - B'



SECTION C - C'



SECTION D - D'



SECTION E - E'

0 80m 200

Metres 1:2500

NOTES

1. REFER TO FIGURES 1.3 AND 2.1 FOR CROSS SECTION LOCATIONS.

LEGEND

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EXISTING / PROPOSED / RESTORED CROSS SECTIONS

FIGURE 2.3

Scale: 1:2,500 @ A3

Date: MAY 2021

501.00584.00019.FIGURE 2.3 CROSS SECTIONS.REV.0.dwg

APPENDICES

Appendix 2.1: Blasting Procedures

Appendix 2.2: Construction Environmental Management Plan

Appendix 2.3: Environmental Monitoring Plan

1. SCOPE

The purpose of this Method Statement is to document the procedures used by Irish Industrial Explosives' Engineers to perform blasting duties at Aughamore Quarry, Aughamore, Co. Sligo. IIE blasting engineers include IIE Explosives Supervisors and IIE Shotfirers only. This method statement is prepared in accordance with all applicable legislation including the Safety, Health and Welfare at Work Act 2005, and the Safety, Health and Welfare at Work (Quarries) Regulations, 2008, and best practice within industry.

2. GENERAL

2.1 In accordance with the duties as outlined in the Safety, Health and Welfare at Work (Quarries) Regulations, 2008, and the Safety, Health and Welfare at Work Act 2005, responsibility for managing Health and Safety in the Quarry rests with the quarry operator and their appointed Quarry Manager.

2.2 The 2008 Quarries Regulations state that there must be an Explosives Supervisor appointed for every blast. The IIE engineer(s) must be clear on who are the appointed Shotfirer(s) and Explosives Supervisor on the day. Only one person may be appointed as Explosives Supervisor at any one time for each blast.

2.3 For the remainder of this document, the IIE Engineer is either the appointed Explosives Supervisor or Shotfirer for the blast. In some situations, the IIE person may be appointed as both roles.

2.4 The IIE Engineer (Explosives Supervisor and/or Shotfirer) must comply with the Quarry Shotfiring Rules and Regulations.

2.5 No person shall be permitted to handle explosives other than those who are under the supervision of the authorised Explosives Supervisor, Shotfirer or Trainee Shotfirer.

2.6 All breaches of safety rules and regulations should be reported to the Quarry Manager.

2.7 If the Shotfirer needs to leave the blast site for any reason (e.g. setting up of vibrograph equipment), all charging operations must cease and the Shotfirer must ensure that the blast site is supervised by a competent person.

2.8 The Explosives Supervisor shall determine the Danger Zone for the blast in conjunction with the Shotfirer. This zone may be defined as the area in the vicinity of a blast where persons who are not under suitable solid protective cover run the risk of injury from fly rock. Having determined the Danger Zone, the Explosives Supervisor must communicate that information to the Quarry Manager. The Quarry Regulations require that an adequate written blast specification including identification of the Danger Zone based on an assessment of the risks is prepared by the Explosives Supervisor for each

blast. This Risk Assessment and Danger Zone Assessment must be documented in the Engineer's blast report pack.

2.9 If the Explosives Supervisor/Shotfirer considers that certain site machinery (including vehicles) are too close to the blast area he should inform the Quarry Manager before charging commences, and request that it is moved to a safe location.

2.10 In the event of a lightning storm in the vicinity, all handling of explosives will cease, and persons must be cleared from the Danger Zone at the quarry.

2.11 Only approved tools can be used by the Explosives Supervisor/Shotfirer.

2.12 Smoking is not permitted on the blast site.

3. TYPES OF BLASTING

- **With Kemex 70 (pumped emulsion product);** explosives manufactured on site using a mobile manufacturing unit and pumped directly into the drill holes (MSDS for Kemex 70 is attached).

4. ENTERING THE SITE

4.1 All IIE employees will report to the site office, on arrival.

4.2 All relevant Personal Protective Equipment (PPE) must be worn at all times in line with IIE company policy, IIE risk assessment(s) and quarry PPE requirements.

4.3 Site specific rules must be observed at all times.

4.4 Vehicle and traffic rules (including site speed limits) must always be adhered to.

5. ACTIONS BEFORE LOADING COMMENCES

5.1 The truck operator and IIE Engineer (Explosives Supervisor/Shotfirer) will examine the blast area to ensure that:

- The ground is stable, particularly near any high rock faces.
- Access to the working area is safe.
- The parking position of the truck is safe with respect to traction and stability.
- All other IIE vehicles should be parked safely, in relation to quarry faces, edges and other mobile equipment.
- Ensure stemming material is in place before priming or loading commences.

5.2 The IIE Engineer (Explosives Supervisor/Shotfirer) should examine the face in order to check for any weak areas, clay seams or geological anomalies, which might have an adverse affect on the blast.

5.3 The blast hole pattern (including hole burdens), geometry, hole depth and water content should also be checked in conjunction with the drillers log and the quarry face profile/probe data (where applicable).

5.4 The Blast Specification must be in place before drill hole loading commences. All work areas must be risk assessed and this assessment recorded before work commences. Where there are two IIE Engineers (E.g. two Shotfirers, or an Explosives Supervisor and Shotfirer) the same Risk Assessment can be used by both provided it is signed off by both. Two blasts require two blast specifications and two sets of paperwork.

5.5 The following must be completed before hole loading commences: blast location/danger zone identification, design delay pattern and blast hole positions, initiation and charging design, burden assessment and face inspection.

6. RECEIVING AND DISTRIBUTING EXPLOSIVES (PUMPED EMULSION PRODUCT)

6.1 Deliveries are made to the quarry by an IIE truck. The quantities of boosters and detonators will be checked against the delivery docket.

6.2 Boosters and detonators should only be removed from their packaging when required.

6.3 The quantities of explosives, detonators and boosters must be signed for by a customer representative, Shotfirer and passed onto the Explosives Supervisor for his/her records.

7. PRIMING (PUMPED EMULSION PRODUCT)

7.1 At each hole, the detonator(s) specified for the base charge in that hole should be inserted into the booster. Two detonators are required for each explosive deck to negate the possibility of a misfire and undetonated explosive in the muck pile. When the charge length is >6m; one detonator should be placed in the bottom primer and the second detonator should be placed in the second primer close to the top of the column of explosive. This procedure must be followed to ensure that all the explosive is detonated.

7.2 The primer should be lowered carefully and located at the bottom of the borehole before pumping commences, unless the blast design requires it to be positioned elsewhere.

7.3 After the hole is loaded with product, the primer should be raised to toe level to ensure that it is completely surrounded with explosive. No excessive force should be used.

7.4 The legwires, or shock tube to the primer should then be secured at surface, around an inert object to prevent it being lost down the hole during loading.

8. LOADING THE BASE AND COLUMN CHARGE (PUMPED EMULSION PRODUCT)

8.1 Vigilance is required throughout the complete operation; especially listening while charging the drill hole.

8.2 Always load the holes nearest the free face first before the back holes, so that in the event of a truck breakdown, a drill hole collapse, or other reason to discontinue loading, the holes in the front of the blast will be able to be fired.

8.3 It is extremely important that the loading of the first borehole is very closely monitored to check the product loading linear charge rate and the quality of the borehole.

8.4 Pumping of the product should take place from the bottom of the borehole.

8.5 Care must be taken when handling the hose due to its weight. The person holding the delivery hose should not stand with his back towards the free face.

8.6 Where a continuous column of explosive is to be loaded the column rise should be checked to compare the actual rise with the calculated rise. In poor ground conditions (actual or suspected) increase the frequency of checks on column rise.

8.7 If there are concerns about the loading linear charge rate, loading should be stopped, and the appropriate checks carried out.

8.8 During the charging operation care must be observed to prevent the primer being dragged up the hole by snagging of the initiation lines or being flushed up the hole by pressure from pumping.

8.9 Care should always be taken to ensure that explosive does not become lodged in the stemming section of the borehole. If this occurs, it should be pushed down using approved stemming rods or the truck delivery hose pipe.

8.10 Product taken for sampling must be disposed of in boreholes prior to completion of the charging operation.

8.11 In wet holes, there is a possibility of the explosives' column becoming separated by pockets of water due to the withdrawal of the hose more than the pumping rate. If this occurs, stemming rods, or the delivery hose, should be used in a piston like action within the borehole, and this will free the water. Care should be taken not to damage the in-hole leg wires or shock tube.

8.12 Second priming is normally carried out by placing a detonator and primer in the upper section of the column charge (refer to priming and loading sections above). Second priming is required when the charge length exceeds 6m; this is carried out by placing a second detonator in the top primer of the column charge. This practise is required to negate the possibility of undetonated explosive.

8.13 Ensure that the holes have been loaded to the correct stem length.

8.14 When an emulsion blend is being used a suitable allowance should be made against stemming depth to allow for expansion of the product during gassing.

8.15 Before any stemming is added, a suitable time must be given to allow the product to gas attain its required density.

8.16 When two delays or multiple delays per hole are designed, the priming and loading procedures outlined above must be repeated.

9. CONNECTING AND STEMMING

9.1 Suitable and sufficient stemming material should be loaded into the hole, care being taken not to damage the shock tube or detonators leg wires at the collar of the hole.

9.2 Where shock tube initiation systems are being used, the surface connector units should be attached so as to achieve the desired firing sequence. It is important to allow some slack on the tubes between the holes. It is recommended that a 'second check' is completed on all surface connector blocks to ensure that all tubes are connected correctly and that the desired firing sequence is achieved.

9.3 Where Electric or Electronic detonators are being used, the electrical integrity of the circuit must be tested before the holes are stemmed. Linking of the circuits should be carried out appropriately. All connections should be made appropriately. The planned connection pattern should be referred to.

9.4 Before moving from the blast site to the firing point the following details should be checked by the Shotfirer: -

- Count the number of holes in the circuit and ensure that all holes are connected.
- Check that all connections / joints are made correctly.
- The stemming material has not slumped in any hole.

- For electric and electronic blasts, test the completed circuits at the firing position.

Note: for some electronic detonator systems, there is a requirement to clear the area of all persons before the final test.

10. PROCEDURE PRIOR TO BLASTING

10.1 The Explosives Supervisor shall determine the Danger Zone for the blast. The Explosives Supervisor should contact the Quarry Manager before the blasting commences and highlight the Danger Zone and his responsibilities for clearing the Danger Zone.

10.2 The IIE Engineer must follow the "IIE Danger Zone Assessment Procedure" and pay particular attention to the Risk Assessment checklist.

10.3 The IIE Engineer must complete the Danger Zone Assessment Checklist and record a sketch of the Danger Zone prior to firing the blast and communicate this to the Quarry Manager.

10.4 It is the responsibility of the Quarry Manager to ensure that the Danger Zone has been evacuated, that sentries have been posted and that an appropriate communication system is in place to ensure that no persons enter the Danger Zone until the all clear has been given by the Shotfirer.

10.5 The Shotfirer must liaise with the Quarry Manager to ensure that all persons have been withdrawn from the Danger Zone.

10.6 If any person passes a sentry having been advised not to do so, the Shotfirer must be informed immediately.

10.7 A system of signals should be adopted to warn of an imminent blast, as well as an all clear signal after the Shotfirer has ascertained that it is safe for persons to return.

10.8 The Shotfirer shall fire the blast from a safe place, (upwind if practical) as soon as the Quarry Manager or the person appointed by him, gives the signal, and has retreated to a safe position. Any persons in the shotfiring position can only be there with permission of the Shotfirer and when approved by the Quarry Manager.

11. PROCEDURE AFTER BLASTING

11.1 After the blast has been fired the Shotfirer shall wait for the fumes to clear and then proceed to the blast area. He should look for any evidence of misfired materials or other hazards.

11.2 When the Shotfirer is satisfied that it is safe for persons to return to the quarry, he should give the all clear signal.

12. MISFIRE PROCEDURE

12.1 In the event of a misfire, Shotfirer will follow IIE Misfire Procedure.

13. DESTRUCTION OF SURPLUS EXPLOSIVES

13.1 In the event of a small surplus explosives and/or accessories remaining after the blast, the Shotfirer should refer to the IIE Technical Service Bulletin (Current Revision), Recommended Methods for the Destruction of Explosives & Accessories.

14. RECORD KEEPING

14.1 The Danger Zone assessment checklist and Site Risk Assessment record for each blast must be completed by the Shotfirer prior to firing the blast. The IIE Engineer must record in the blast paperwork who is the Explosives Supervisor and who the Shotfirer is on the day of the blast.

14.2 A field record should be taken of the loading details of each hole, and then transferred to the Blast Report Pack for filing. The Blast Report forms should be completed accurately with the total amounts agreeing with the quantities delivered. It is imperative that on-site records are kept. An Engineer must show records before, during and after loading.

14.3 All relevant sections of the Blast Report Pack must be completed, and a copy of the Blast Pack must be left the Quarry Manager.

15.REFERENCES

15.1 Safety, Health and Welfare at Work Act, 2005

15.2 Safety, Health and Welfare at Work (Quarries) Regulations, (2008)

15.3 IIE Quarry Blasting Risk Assessment

15.4 IIE Environmental Monitoring Procedure

15.5 IIE Misfire Procedure and Danger Zone Assessment Procedure

15.6 IIE Material Safety Data Sheets

15.7 IIE Safety Statement

16.REVIEW DATE

This procedure will be reviewed three years from date of issue or sooner if required.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

Recommencement & Deepening of Existing Quarry and Associated Aggregate Processing Area Aghamore Near, Aghamore Far and Carrownamaddoo townlands, County Sligo

Prepared for: Lagan Materials Ltd

SLR Ref: 501.00584.00019
Version No: Issue 1
May 2021

BASIS OF REPORT

This document has been prepared by SLR with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Lagan Materials Ltd.(the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

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CONTENTS

1.0 INTRODUCTION

Lagan Materials Ltd. (Lagan) has instructed SLR Consulting Limited (SLR) to prepare a Construction Environmental Management Plan (CEMP) for the construction of the proposed settlement lagoon at the application site.

It is considered that the most appropriate means of providing this information is in the form a CEMP that outlines how potential adverse impacts on the water environment that may arise during the construction of the proposed settlement lagoon will be managed. This CEMP should be read in conjunction with Drawings 4 and 7 submitted with the planning application.

Lagan and Lagan's contractors will be required to implement measures to prevent, or minimise, harm to the environment from the construction of the proposed settlement lagoon. This CEMP sets out the management measures that will be employed during the construction phase, which all contractors will be required to adopt and implement throughout the works. This CEMP will enable the contractors to minimise, avoid and / or manage their potential effect on the water environment.

In the event that contractors identify further environmental impacts arising from their activities they will be required to inform Lagan immediately and implement appropriate measures to managing these further impacts.

1.1 Environmental Management during Construction

When Lagan select the contractors for the works, the contractors will be required to sign a contract that confirms they will comply with the requirements of this CEMP.

All contractors on site will be required to comply with all relevant environmental legislation and to take full account of all published standards, accepted industry practice, national guidelines and codes of practice relevant to the construction works. The environmental performance of the contractors will be monitored by Lagan through site inspections and audits over the duration of the works,

Lagan will ensure that all contractors operate an induction scheme for all employees. This will ensure that all site operatives are aware of the site rules and their environmental responsibilities including adherence to the CEMP. Training needs for site operatives should also be identified as part of this induction process and appropriate training provided as required.

1.2 Communication

This CEMP will be distributed to the contractor and key operatives employed on site during the construction phase of the works. Lagan and the contractor's Environmental Policy will be clearly displayed on site and made the subject of regular toolbox talks.

The contractor will ensure that the following aspects of daily site operations will be communicated to all staff;

- progress reports;
- training of site operatives, if required;
- daily and weekly audits and inspections of site operations;
- management of any complaints received;
- visits by external bodies or authorities; and
- objectives and targets.

Any non-conformances on site will be recorded and Lagan immediately notified and then passed on to all site operatives.

During the regular on site progress meetings, performance to date will be discussed together with:

- the need for improvements (if any);
- results of inspections;
- and any complaints received.

Upcoming work operations will be reviewed to plan any necessary actions to mitigate environmental risks and to disseminate information on best practice.

2.0 GENERAL SITE INFORMATION

2.1 Description of the works

This CEMP has been prepared for the construction of a settlement lagoon and associated infrastructure to manage the quality of surface water runoff accumulating in the base of the quarry. This accumulated runoff is to be discharged to a small watercourse (referred to as the Aghamore Stream) on the eastern side of the local road that separates the quarry from the Processing Area, via the proposed settlement lagoon.

Runoff accumulating in the base of the quarry will be drained to a sump and pumped to the settlement lagoon. Whilst a gravity discharge to the Aghamore Stream from the settlement lagoon would be technically feasible, due to the elevation of the local road, an excessively deep pipe trench would be required and therefore it is proposed that supernatant water in the settlement lagoon will be pumped to a discharge manhole and silt sump on the south western side of the junction of the haul road with the local road from where it can drain by gravity beneath the local road to the Aghamore Stream.

In addition, groundwater accumulating in the groundwater sump will be pumped to the proposed discharge manhole allowing a combined gravity feed to the Aghamore Stream. Pumped groundwater does not require any form of treatment prior to discharge to the Stream.

Pumping mains will be laid on the ground surface adjacent to the haul road suitably protected by Armco Barriers or similar. This has the advantage or reducing the excavation (trenching) required.

The proposed arrangement is illustrated on Drawing 4.

Construction of the settlement lagoon will require the excavation by predominantly excavation or drill and blasting of approximately 42,500m^3 of topsoil, overburden and rock. Excavated rock will be processed in the main Processing Area. Topsoil and overburden will be placed into worked out areas as part of the progressive restoration scheme – refer to EIAR Figure 2.2.

The final profile of the settlement lagoon will be formed by ripping and the formation to accept a geomembrane (welded HDPE liner) regulated by the placement of a minimum thickness of a protective bedding material. The geomembrane will be protected by a suitably specified geotextile which in turn will be overlain by a fine stone protection layer and coarse stone protection layer. The geomembrane will be secured in a perimeter anchor trench. Sections through the proposed settlement lagoon are shown by Drawing 7 and the proposed liner installation details and inlet and outlet details by Drawing 7.

Inlet and outlet structures will be constructed on top of the geomembrane liner as shown by Drawing 7. Inlet and outlet pipework will be protected by a stone protection haunch again over the top of the liner. Where the outlet pipe passes through the liner, a suitable collar will be installed around the pipe to ensure its water-tightness.

2.2 Construction working hours

All construction works will be carried out within the currently permitted operational hours for the quarry.

2.3 Construction site layout

The settlement lagoon will be located entirely within the curtilage of the existing quarry immediately to the south of the existing haul road connecting the quarry with the Processing Area on the other side of the local road.

Key receptors identified in Chapter 7 the EIAR that are of direct relevance to the construction of the settlement lagoon are groundwaters underlying the site and surface water runoff draining into to the base of the quarry that is then pumped to the Aghamore Stream.

To minimise the potential impact of the construction works on key receptors the following general principals will be followed;

- A construction compound including site welfare facilities will be located with the existing Processing Area at a location to be agreed with Lagan;
- Plant and construction materials will be stored in the Processing Area;
- No construction plant will be left unattended within the construction area at any time; and
- Refuelling and servicing of plant and machinery will only be completed in the construction compound;
- Lagan and the contractor will ensure the construction site is secure at all times.

2.4 Construction site security

The construction site is located within the confines of the existing quarry. As shown by Drawing 3, the site is securely fenced and there are no public rights of way across the site.

It is therefore unlikely that there will be any unauthorised access during the construction works.

2.5 Site access and haul roads

Access to the site is from the local road. Access to the works area from the construction compound in the Processing Area is via the haul road to the quarry and requires crossing the local road. The contractor will follow the procedures established by Lagan for crossing this road with construction plant.

Wheel washes are to be established on the quarry haul road and on the Processing Area at the locations shown on Drawing 4.

3.0 POLLUTION PREVENTION PLANNING

The construction site will be operated to minimise, or reduce impacts to the surrounding environment. The following sections of this CEMP include mitigation methods to avoid, or mitigate, the impact of potential pollution arising from the construction of the settlement lagoon and associated infrastructure.

3.1 Excavation

The excavation of the settlement lagoon will require the stripping of topsoil and overburden down to the rockhead. The excavated topsoil and overburden will be placed into worked out areas as part of the progressive restoration scheme – refer to Drawing 5 and EIAR Figure 2.2.

Blasting works will be completed in accordance with Lagan's Quarry Blasting Procedure SOP-BS-01 – refer to Appendix 2.1. Excavated rock will be removed to the Processing Area for processing.

The formation will be trimmed by ripping and again excavated rock removed to the Processing Area for processing.

The excavated topsoil, overburden or rock are unlikely to give rise to a specific pollution risk other than potentially elevated concentrations of suspended solids in surface water runoff. It is therefore plant failure that gives rise to the greatest pollution risk.

Chapter 7 of the EIAR confirms that groundwater will not be encountered during the excavation of the settlement lagoon and therefore dewatering and/or management of groundwater will not be required. The following measures will be implemented during this phase of the works:

- the management of suspended solids will be implemented as per Section 3.2;
- if any unexpected and potentially contaminated materials, or soils are encountered during the excavation works management and mitigation measures described in Section 3.8 of this Plan will be implemented;
- all plant used during the excavation of the settlement lagoon will have been regularly maintained and serviced in accordance with manufactures recommendations. Service records will be available for inspection by Lagan,
- daily checks will be made on all plant for signs of leaking fuel, lubricants, hydraulic fluids and coolants before they are moved from the Process Area. These inspections will be recorded and made available for inspection by Lagan;
- a spill kit will be maintained at the site of the settlement lagoon at all times; and
- if there is a major plant failure than cannot be managed with the spill kit, the contractor will immediately inform Lagan who will stop the sump pumps in the quarry void until they are satisfied that the accumulated water will meet their discharge consent to the Aghamore Stream.

3.2 Silt Management

Any surface water runoff will follow the local topography and flow down the haul road into the quarry sump. The exposed rock is likely to provide a direct pathway to groundwater through fissure flow.

The exposed rock is expected to be relatively permeable and therefore it is unlikely that once the topsoil and overburden have been removed that significant runoff from the works area will occur as it is likely to drain through the exposed fissures in the rock. Any fine silts generated during the excavation of the intact rock are therefore likely to be filtered out in the fissure flow and in any event are inert. No significant impact from siltation on groundwaters is therefore anticipated during excavation of the rock.

As outlined above, the local topography shown by Drawing 3 indicates that any surface water runoff from the site of the settlement lagoon will drain down the haul road into the quarry void and will ultimately drain to the existing quarry sump where any suspended solids will settle prior to discharge from site. This discharge will be regulated under the existing discharge licence (DL(W)151).

3.3 Lagoon Construction

It is anticipated that the Protection Bedding, Fine Stone Protection and Coarse Stone Protection layers will be manufactured in the Processing Area from the excavated rock and delivered to the site of the settlement lagoon along the haul road.

It is only during the placement of the Protection Bedding layer that surface water runoff could potentially occur, however, this is unlikely as it will be placed within a formed depression. The Fine Stone Protection and Coarse Stone Protection layers will be placed over the top of the completed geomembrane and therefore any incident rainfall will be contained by the lining system.

Once the liner has been installed, incident rainfall may have to be managed to allow the installation of the inlet and outlet works. This may require a temporary sump to be created in the stone protection layers and accumulated rainwater pumped out.

This accumulated water can be directed to the existing quarry sump provided it has not been contaminated by any construction activities with the lagoon following installation of the geomembrane such as placing the concrete bases to the inlet and outlet structures.

3.4 Cement, concrete and grout

The only part of the works requiring the use of concrete, cement or grout is the construction of the inlet and outlet structures and these will be completed after installation of the liner, so any potential pollution will be contained.

However, subject to detailed design, a concrete plinth/slab may be required for the supernatant water delivery pump which is located outside the settlement lagoon – refer to Drawing 7 for proposed location. To minimise the risk to groundwater, the pump slab, if required, will be cast over an impermeable membrane laid over the formation.

The concrete will be batched off site (ready-mix) and delivered to site.

3.5 Material Storage, stockpiles and exposed ground

Construction materials must be stored within an area designated by Lagan within the Processing Area. Any such materials will be managed by:

- locating all stockpiles at a suitable distance from watercourses to prevent any potentially silt laden runoff entering these watercourses;
- covering or dampening down stockpiles to prevent windblown dust in particularly dry conditions;
- forming stockpiles on level ground in designated area(s) of the site;
- storing packaging materials in appropriate containers to be removed off site to a suitably licensed facility;
- keeping discharge heights during delivery of materials as low as possible to prevent windblown dust; and
- removal off site of any contaminated material on a daily basis, or storing in a covered area impermeable area of the site which is bunded.

The stockpiling of materials will be controlled by the Site Manager or nominated person so as not to cause excessive storage quantities being held on site at any one time.

3.6 Oil storage, use and refuelling

3.6.1 Preventative Measures

It is considered unlikely that there will be a requirement for storing significant quantities of oil, fuels or chemicals specifically for the construction of the settlement lagoon. However, to prevent potential loss of containment of these hazardous materials and to minimise the risk and impact of releases, the following measures will be implemented:

- all oils, lubricant and fuels used for onsite plant, will be stored in appropriate containers / tanks with secondary containment where required within the contractor's compound provided by Lagan;
- no oils, lubricant or fuels will be stored on unmade ground where there is potential for the pollution of groundwater;
- storage containers and secondary containment will be inspected visually on a daily basis and records maintained for inspection by Lagan. These records should identify any remedial measures required to ensure no loss of containment and any such measure put in place immediately; and
- spill kits appropriate to the materials to be stored will be maintained on site at all times.

In the event of any potentially polluting leak or spillage occurring on site, the following action will be taken:

- minor spillages will be cleaned up immediately, using spill kits. The resultant materials will be placed into containers and will then be removed from site and disposed of at a suitably licenced facility. The incident will be recorded and Lagan informed immediately;
- any dry wastes spilled on site will be collected and transported to the appropriate area of the site; and
- in the event of a major spillage, which is causing, or is likely to cause, polluting emissions to the environment, immediate action will be taken to contain the spillage and prevent liquid from entering watercourses or percolating into the ground. The spillage will be cleared immediately and placed in containers for offsite disposal. Lagan and the appropriate regulator must be informed immediately of any such incident.

3.6.2 Inspection and Maintenance

The Site Manager or nominated person will ensure that an active inspection and maintenance program will be undertaken on a daily and weekly basis. The following inspections will be implemented on site:

- all oil containers, secondary containers and vehicles will be inspected on a daily basis to check for signs of damage, corrosion, bulging, leaks or unauthorised use;
- all required maintenance will be carried out immediately;
- oil levels will be checked within the storage containers frequently; and
- if required, oil and fuel use patterns will be recorded (stock reconciliation), to identify potential leakage not apparent from a visible inspection.

3.7 Chemicals and hazardous substances

The Site Manager or nominated person will ensure that every delivery of chemicals or hazardous substances that may be required during the works is accompanied by a 'Safety Data Sheet' (SDS). This will ensure that all handlers and users of the substances are fully aware of the potential hazards to persons and the environment.

To ensure the any such substances are stored on site to minimise the potential impact to the environment and/or operatives the following measures will be implemented on site:

- all substances will be stored in the contractor's vehicle or other secure lockable location;
- only the required amount of chemicals and hazardous substances will be ordered and stored on site;
- all containers will be clearly labelled and fit for purpose with appropriate lids if required;
- the containers will be regularly inspected for continued integrity;
- spill kits specifically for the use in chemical and hazardous spills will be located in the contractor's vehicle or in the vicinity of the lockable store;
- all site operatives will be trained in the use of these substances and emergency procedures should accidental leakage and/or spillage occur.

3.8 Land contamination and invasive species

Given the setting of the settlement lagoon and historic land use, it is unlikely that land contamination or invasive species will be encountered during the works.

However, if they are encountered or suspected, the Site Manager or nominated person will immediately inform Lagan and follow the protocol set out below.

3.8.1 Measures and mitigation measures if unknown contamination is encountered

The Site Manager or nominated person will ensure that a qualified site operative, with knowledge of ground contamination, is on site during the excavation phase of the project.

In accordance with best practice, if the ground is found to be contaminated all works will be ceased until an assessment can be completed by a suitably trained specialist.

If contamination is found, the following measures will be implemented;

- dust mitigation methods will be employed;
- all site operatives will be provided with personal protective equipment (PPE) such as gloves, overalls, dusk mask, respirators etc. to minimise the effect of any contact with the contaminated material and soils;
- all site operatives will be provided with adequate hygiene facilities and clean welfare facilities; and
- if required, monitoring will occur in confined spaces for any potential gas accumulations and access to these areas will be restricted.

If any contaminated material is found during excavations, it will be stored and covered in a designated area on site which benefits from impermeable surfacing or sheeting. These measures will ensure there is limited surface water runoff of contaminated liquid.

The contaminated material will be taken off site to a suitably licensed facility.

3.8.2 Invasive Species

If invasive species found or suspected on site, an assessment will be carried out to complete a positive identification. If any species are identified, then a suitably trained specialist will be employed for their removal and disposal to a suitably licensed facility.

4.0 EMISSION CONTROL

All reasonable efforts will be made to ensure that emissions are kept to a minimum on site during the construction phase.

The following section describes the management measures that will be implemented on site to control emissions.

4.1 Noise Management

Construction operations will only be carried out during operational hours, set out in the planning consent.

Mitigation and management measures that will be implemented but not limited to on site include:

- machinery and plant will be chosen, when possible, with noise control measures such as silencers, mufflers etc.;
- all vehicles on site will be regularly and well maintained;
- all equipment will be maintained and operated in accordance with manufacturer's guidance and will be maintained in good working order;
- noise barriers will be constructed, if necessary, in the form of temporary walls or piles of excavated material between the construction activities and any noise sensitive receptors;
- site equipment will be sited away from noise sensitive receptors; and
- construction works will only occur during specific times, detailed in Section 2.2.

Any complaint received will be logged in the Site Diary. The Site Manager or nominated person will investigate the complaint and will take action to identify the source of the nuisance and implement remedial measures where appropriate.

4.2 Vehicle and plant emissions

Vehicle and plant emissions on site will be controlled by implementing the following mitigation measures;

- all vehicles and plant will not be left running whilst not in use;
- if necessary, low emission vehicles will be used and plant will be fitted with catalysts, diesel particulate filters or similar devices;
- if necessary ultra-low sulphur fuels will be used in on site vehicles and plant;
- all vehicles on site will be regularly and well maintained in accordance with the manufacturers recommendations.

4.3 Dust management and monitoring

Dust control measures will be integrated, if required, on site during the construction phase to minimise emissions of dust and other particulates that could potentially adversely affect local air quality.

Daily, visual inspection at all areas of the construction site and site boundary will be carried out by site personnel. In the event that significant visual dust emissions are observed at the boundaries of the operational areas, action will be taken to suppress the dust. A record of the inspection findings & remedial action taken will be made in the Site Diary.

In order to minimise the emissions of dust from the construction works, the following measures will be implemented:

- speed limits will be implemented for vehicles using the site;
- all vehicles entering and leaving the site will be covered;
- all dust suppression equipment will be kept in good condition and be regularly maintained;
- the local road will be inspected on a daily basis at the entrance/exit of the site, and if required will be cleaned;
- any small amounts of cement used on site and other similar materials will be mixed in designated areas of the site;
- any materials prone to emitting dust will be stored/stockpiled away from the construction site boundary and any environmental receptors;
- discharge heights will be kept as low as possible to prevent windblown dust;
- the access road and operational areas will be maintained and repaired to minimise emissions of dust.

4.3.1 Mud and debris

The access road for the site is from the local road. Due to the nature of the construction materials accepted on site and the mitigation methods that will be employed to prevent emissions, it is not anticipated that mud and debris will pose a serious risk, particularly as topsoil / overburden will be managed within the site boundaries and wheelwashes are to be employed on the haul road leading to quarry and the Processing Area as shown by Drawing 4.

However, within the site the following measures will be taken in order to prevent the deposition or tracking of mud or debris from the site onto public areas or highways:

- haul roads will be adequately drained and maintained free of significant quantities of mud and debris;
- all operational areas will be subject to monitoring by staff throughout the working day to identify accumulations of mud requiring remedial action;
- where necessary road cleaning equipment will be deployed; and
- all vehicles leaving operational areas will, be checked for cleanliness and if necessary before leaving the site will be cleaned and will be checked to ensure that they are clear of loose waste and that any products being exported from the site are secure.

In the event that mud, debris or dust arising from the site is deposited onto public areas outside the site, the following remedial measures will be implemented:

- the affected public areas outside the site will be cleaned;
- traffic will be isolated from sources of mud and debris within the site to prevent further tracking of mud and debris, and measures will be taken to clear any such sources as soon as practicable; and
- provision will be made for road sweepers on the site access roads to stop any mud being carried onto public roads, and bowsers made available to damp down areas during dry periods to ensure that dust is not a problem.

4.4 Lighting management

Light pollution can have an adverse effect on local residents and wildlife. However, due to the permitted construction working hours it is likely that all works will be carried out in the daylight.

Although the site is not located near particularly sensitive receptors, the following management measures will be considered, if required;

- lights will be directed away from any light sensitive receptors;
- areas will not be over lit;
- glare will be kept to a minimum;
- specifically designed construction lighting equipment will be used; and
- lights will be positioned sensibly on site.

5.0 EMERGENCY PLAN

A series of emergency plan procedures will be put in place on site to govern any environmental incidents. All construction operatives will be instructed on these procedures by the Site Manager or nominated person so they will be able to adhere and implement the management of any incident on site.

The emergency procedures will detail all emergency phone numbers for the local authority and specific regulatory bodies. The contact details of key personnel within Lagan will also be provided.

6.0 CONCLUSIONS

The objective of this CEMP is to ensure that during the construction phase, daily operations have a negligible effect on the local environment and sensitive receptors. This report outlines the management and mitigation methods that will be implemented to deal with the impact of construction.

Lagan and the appointed contractor will ensure that this CEMP is implemented on site.

LAGAN MATERIALS LTD.

AUGHAMORE, CO SLIGO

ENVIRONMENTAL MANAGEMENT PLAN

CONTENTS

LAGAN MATERIALS LTD.

AUGHAMORE, CO SLIGO

ISO 14001: 2015

1. ENVIRONMENTAL MANUAL

AMENDMENT RECORD

Date	Section	Amendment No.	Amendment
31/01/2006	All	1	Various changes to align document for both quality and environmental procedures and include reference to specific Air Emissions Licence where applicable.
21/01/2007	All	2	Various changes including personnel updates
31/03/2008	All	3	Implementation of FPC in accordance with EN 13108-21:2006 and issue 7 of SS14.
18/04/2008	All	4	Updated to include cross-references to site-specific Permits & Licences and to site-specific procedures
16/01/2009	All	5	Various changes made to the Procedures to account for changes at the site and to accommodate a change in the inspection sheets
01/02/2017	All	6	Implementation of EMP at the site to comply with the requirements and format of ISO 14001:2015.
05/05/2021	All	7	Updating of EMP to reflect changes within the company structure.

INTRODUCTION

Lagan Materials Ltd operates asphalt plants, aggregate quarries and associated products in strategic locations aimed at being able to service all but the remotest regions of Ireland. The Lagan Materials Ltd. sites are located at:

Aughamore, Co Sligo;
Aughnacliffe, Co Longford;
Ballisodare, Co Sligo;
Ballycoolin, Co Dublin;
Belcare, Tuam, Co Galway;
Bennetsbridge, Co Kilkenny;
Bweeng, Co Cork;
Castlepollard, Co Westmeath;
Cliff, Co Clare;
Dolans Pit, Coolrain, County Laois;
Glanworth, Co Cork;
Kinnegad, Co Westmeath;
Leacarrow, Co Roscommon;
Lobinstown, Co Meath;
Milebush, Co Cork;
Rossmore, Carrigtwohill, Co Cork;
Tulla, Co Clare.

The Companies head office facility is based on the outskirts of Dublin at Rosemount Business Park, Ballycoolin.

The Companies have established an integrated management system (IMS) designed to comply with the Environmental requirements of the ISO 14001:2015 standard and the Quality Management requirements of ISO 9001:2015. The IMS is a two-tier system with this top-level Environmental Manual based on ISO EN 14001:2015 being applicable to all activities. The top-level Quality manual then feeds down to the Factory Production Control (FPC) Quality Plans and the depot specific Environmental Management Plans.

The FPC Quality Plans incorporate the procedures and controls in place to reflect the quality system for asphalt and aggregate production. The Environmental Management Plans (EMP's) are depot specific and have been designed to comply with the requirements of ISO EN 14001:2015. The EMP's record the procedures and controls in place to reflect the Quality System and the specific environmental aspects and impacts and the legislative requirements applicable at each depot.

The Company has implemented a quality assurance system and an environmental management system and has certification to the ISO 9001 and ISO 14001 standards. The Company's experience and implementation of the systems has identified the advantages of a structured and systematic approach in achieving managerial objectives.

The establishment of an IMS will ensure that the objectives and targets that the Company sets themselves in the environmental and quality policies are appropriate.

1 SCOPE

The Environmental Management System of Lagan Materials Ltd. is outlined in this Environmental Manual and is based on the requirements of ISO 14001:2015.

Consistent with Lagan Materials Ltd. Environmental Policy, the intended outcomes of the Environmental Management System (EMS) include:

- enhancement of environmental performance;
- fulfilment of compliance obligations;
- achievement of environmental objectives

The EMS is applicable to the activities within the control and boundary of the Lagan facility at Aughamore, Co Sligo.

2 NORMATIVE REFERENCES

There are no normative references applicable to this document.

3 TERMS AND DEFINITIONS

For the purpose of this manual the terms and definitions used are as defined in Section 3 of ISO 14001:2015.

4 CONTEXT OF THE ORGANISATION

4.1 Understanding the organisation and its context

Lagan Materials Ltd. has determined external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its environmental management system. Such issues include environmental conditions being affected by or capable of affecting the organisation.

An environmental review of internal and external issues relevant to Lagan Materials Ltd. was completed and considered the following:

- environmental conditions relating to climate, air quality, water quality, flora and fauna, archaeological quality, land use, natural resource availability and biodiversity that can either affect the company's purpose or be affected by its environmental aspects.

- the external cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive circumstances

- the activities, products and services, strategic direction, culture and capabilities (people, knowledge , processes, systems)

This review provided an understanding of the context of Lagan Materials Ltd. and is used to establish, implement, maintain and continually improve its EMS. The internal and external

issues that were and continue to be determined can result in risks and opportunities to Lagan Materials Ltd. or to the EMS. The organisation determines those that need to be addressed and managed as described in the following sections of this manual.

4.2 Understanding the needs and expectations of interested parties

The company has determined the interested parties that are relevant to the EMS. All stakeholders in both the operation of the facility and recipients of the goods produced onsite are considered interested parties. The interested parties for the company include the Licensing Authorities, the Health and Safety Authority, the facility neighbours, customers and anybody who may be impacted directly or indirectly by the company activities on and off-site or the goods produced.

Lagan Materials Ltd. clearly understands the requirements of all stakeholders as described above including the applicable statutory and regulatory requirements. The stakeholders and their associated requirements and any associated risks are routinely reviewed and updated. These are reviewed at strategic level as part of the management review process and are documented with appropriate minutes maintained. Actions and targets associated with this are added to the Lagan Materials Ltd. Objectives and Targets.

The compliance obligations are determined from the above stakeholder requirements and these are set out in the Environmental Management Plan for the site.

4.3 Determining the scope of the environmental management system

Lagan Materials Ltd. has determined the boundaries and applicability of its Environmental Management System to establish its scope. When determining the scope Lagan Materials Ltd. considered the following:

- The external and internal issues referred to in 4.1;
- The compliance obligations referred to in 4.2;
- Its organisational units functions and physical boundaries;
- Its activities, products and services;
- Its authority and ability to exercise control and influence;

The scope of the Lagan Materials Ltd. EMS is defined as all activities, products and services of the organisation operated or directed from within the physical boundaries of the site as detailed in the Planning Permission Application and as detailed in the Environmental Management Review which is carried out annually and is available to interested parties.

4.4 Environmental management system

To achieve the intended outcomes including enhancing its environmental performance Lagan Materials Ltd. has established, implemented, maintains and continually improves its Environmental Management System including the processes needed and their interactions in accordance with the requirements of International Standard ISO 14001:2015 as detailed in this manual and associated documents and processes.

The Environmental Manual is a controlled document, which identifies the overall organisation responsibilities, products, services and facilities, and the scope of operation of Lagan Materials Ltd. It also defines all procedures devised to ensure that the policy objectives are met.

There is also the controlled subsidiary "Depot Procedures" manual, which contain procedures and instructions, which govern the environment-critical activities of the product / service in accordance with the stated objectives of the Environmental Manual.

5 LEADERSHIP

5.1 Leadership and commitment

Top management demonstrates leadership and commitment with respect to the Environmental Management System by:

- Taking accountability for the effectiveness of the EMS;
- Ensuring the environmental policy and environmental objectives are established and are compatible with the strategic direction and the context of the organisation;
- Ensuring the integration of the EMS requirements into the organisations business processes;
- Ensuring that the resources needed for the EMS are available;
- Communicating the importance of effective EMS and of conforming to the EMS requirements;
- Ensuring that the EMS achieves it intended outcomes;
- Directing and supporting persons to contribute to the effectiveness of the EMS;
- Promoting continual improvement;
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

5.2 Environmental policy

Top management has established, implemented and maintains an environmental policy that within the defined scope of its Environmental Management System:

- Is appropriate to the purpose and context of Lagan Materials Ltd. including the nature, scale and environmental impacts of its activities, products and services;
- Provides a framework for setting environmental objectives;
- Includes a commitment to the protection of the environment, including prevention of pollution and other specific commitments relevant to the context of the organisation;
- Includes a commitment to fulfil it's compliance obligations;
- Includes a commitment to continual improvement of the EMS to enhance environmental performance.

The environmental policy is maintained as documented information, is communicated within the organisation at induction, awareness training and is available to interested parties as detailed in the Depot Procedures. The policy applies to all staff at Lagan Materials Ltd. and a copy is clearly displayed in the reception area which is accessible to all staff and the public. A copy of the policy is also available to the public on request. Contractors will also be made aware of the relevant sections of the Environmental Policy that are applicable to them. A copy of the Environmental Policy is appended to this manual.

5.3 Organisational roles, responsibilities and authorities

Top management ensures that the responsibilities and authorities for relevant roles are assigned and communicated within the organisation.

Top management assigns the responsibility and authority for:

- Ensuring that the Environmental Management System conforms to the requirements of ISO 14001:2015;
- Reporting on the performance of the EMS including environmental performance to top management.

Lagan Materials Ltd. roles are shown in the company's organisation chart below. In the absence of the responsible person the relevant manager or subordinate will undertake the assigned duties or delegate as required. The organisation chart identifies functions and their interrelations within the companies. This chart is posted within the organisation to communicate and facilitate effective quality management.

The Operations Director will implement the company requirements at regional level and is responsible for the establishment of the EMS. The Head of Planning and Environment is responsible for ensuring that the company EMS requirements are implemented and maintained in order to comply with the requirements of ISO 14001. The Depot (Operations) Manager implements the day to day requirements of the EMS at depot level and will report on the effectiveness of the operation of the EMS.

The Managing Director will ensure that sufficient resources are allocated to the system to ensure its satisfactory operation.

Organisational Chart

Lagan Group Level	Lagan Site Level - Aughamore
Managing Director ***Terry Lagan***	Regional (General) Manager **Fraser Thom**
Operations Director ***Fraser Thom***	Depot (Operations) Manager ***David Vereker***
Head of Planning & Environment ***Brian Downes***	Weighbridge Operator / Plant Driver
Planning & Environment Officer ***John Fennell***	
Health & Safety Director ***Martin Cairns***	
Health & Safety Manager ***Caitriona Hallisey***	

Responsibilities

Lagan Materials Ltd. employees and sub-contractors have the authority and responsibility to protect the environment at all times. Responsibilities are detailed during the site induction. The Depot (Operations) Manager is the environmental representative on site. It is the responsibility of all staff to report any environmental accidents, incidents, near misses or anything that could potentially cause any of these.

Managing Director – Terry Lagan

The Board of Lagan Materials Ltd. will ensure that adequate resources are provided. The Managing Director (Terry Lagan) has the responsibility to ensure that the Regional Manager and Depot Manager are provided with all necessary resources to ensure the on-going environmental compliance and improvements at the site.

Operations Director – Fraser Thom

The Operations Director is responsible for the management of all operational matters at the Depot and within the local area.

Head of Planning & Environment – Brian Downes

The Head of Planning & Environment is responsible for the establishment of the 14001 management system and providing support to the company. They will be responsible for auditing the system as per the requirements of the audit schedule. They will be responsible for ensuring that environmental aspects are reviewed and that their significance has been determined. They will be responsible for ensuring that the system is being maintained in a satisfactory manner. They will ensure that adequate training has been given to all appropriate personnel and that they are fully familiar with their roles and responsibilities.

Planning & Environment Officer – John Fennell

The Planning & Environment Officer is responsible for the ongoing effective implementation of the EMS at depot level and is also responsible for providing updates and feedback on the status of the sites EMS to the Head of Planning & Environment.

Regional Manager – Fraser Thom

The Regional Manager is responsible for the on-the-ground management of all operational matters at the Depot and for updating the Operations Director.

Depot (Operations) Manager – David Vereker

The Depot Manager is responsible for ensuring that directives from the Managing Director and the Environmental Department are implemented at the depot. He will liaise on a regular basis with the Planning and Environment Officer and Operations Director.

The Depot Manager is responsible for the implementation and maintenance of the EMS for all activities carried out at the Depot. An element of the following list of responsibilities may be delegated as required but responsibility remains with the Depot Manager.

Responsibilities include:

- Maintenance of all on site environmental records;
- Ensuring that emergency procedures are implemented in the event of an accident or emergency situation;
- Performing weekly H&S, QA and Environmental Inspections;
- Ensuring site targets and objectives are completed within their allocated time scales;
- Resolution of all NCR's;
- Ensuring all monitoring requirements are fulfilled including monitoring stack emissions;
- Ensuring a licensed waste contractor is used for removal and disposal of waste leaving site;

Weighbridge Operator / Plant Driver

The Weighbridge Operator / Plant Driver reports to the Depot Manager.

Responsibilities include:

- Carrying out stockpile checks;
- Maintenance of all calibration records for the Depot;
- Carrying out weekly environmental checks;
- Carrying out daily weather recording;
- Weighing of Lorries, incoming and outgoing;
- Maintenance of goods inwards records;
- Carrying out daily dust checks.

Health & Safety Manager – Caitriona Hallissey

The Health & Safety manager will be responsible for auditing and reviewing all aspects of Health & Safety onsite and will report to the Health and safety Director.

6 PLANNING

6.1 Actions to address risks and opportunities

6.1.1 General

The organisation has established, implemented and maintains the process needed to meet the planning requirements.

When planning for the EMS, Lagan Materials Ltd. considers the issues referred to in Section 4.1 and the requirements referred to in Section 4.2 and also the scope of the EMS. The company determine the risks and opportunities that are required to be addressed to:

- give assurance that the EMS can achieve its intended outcomes;
- prevent or reduce undesired effects, including the potential for external environmental conditions to affect the organisation and
- achieve continual improvement.

The scope of the EMS includes the determination of potential emergency situations, including those that can have an environmental impact.

The organisation maintains documented information of its:

- risk and opportunities that need to be addressed;
- processes needed in Sections 6.1.1 to 6.1.4 to the extent necessary to have confidence they are carried out as planned.

A risk analysis review is performed at monthly board meetings and the resulting actions form part of the Objectives and Targets for the company. Lagan Materials Ltd. will then, were appropriate, plan actions to address these risks and opportunities through setting of Objectives and Targets and integrate and implement the actions into its EMS processes. These actions are then evaluated for the effectiveness on an ongoing basis

Actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of products and services.

6.1.2 Environmental aspects

Lagan Materials Ltd. has made an environmental impact assessment of the activities to be undertaken by the Company. It will evaluate these documents in conjunction with existing assessments made as a requirement of its own ISO 14001 management system to identify the environmental aspects and impacts of their activities and determine those which are deemed significant. Lagan Materials Ltd. will determine those over which it is possible to have an influence, which will be consistent from a life

Lagan Materials Ltd. will evaluate its aspects and identify the means by which the aspects and impacts are classified.

Lagan Materials Ltd. will seek to minimise the environmental impacts of its operations and will seek to monitor throughout each activity the environmental aspects and impacts of its activities in relation to the production of material products. Aspects and impacts will be evaluated on a

continual basis. Lagan Materials Ltd. has in the establishment of this manual considered the requirements of the local communities and regulatory obligations.

The Head of Planning and Environment will be responsible for re-assessing environmental aspects and impacts prior to work actually commencing; this is to facilitate for any environmental or ecological changes that may have emerged since the impact statements were conducted. This will include potential impacts based on emergency or abnormal operating conditions. They will ensure that work planned for the future has environmental aspects considered and the possible impacts that these may have.

Aspect Significance

Lagan Materials Ltd. will employ a competent person to identify the environmental aspects and determine those activities over which it is possible for Lagan Materials Ltd. to have an influence, in order to determine those which may have significant impacts on the environment.

Aspects and impacts will be evaluated and any aspect will be deemed significant if:

1. There is a requirement to meet legislative criteria e.g. Air Emission Licence, planning conditions.
2. The impact could cause a prolonged or long term nuisance.
3. The impact could have long term effect to the environment outside the confines of the site.
4. It is assigned a score of over 10 after analysis using a risk matrix.

Environmental aspects will be reviewed and identified by the Technical Manager. The review will take place annually and will be recorded in the management review meeting minutes. The review will consider the following:

a. Legislative updates or amendments
b. Introduction of any new item of plant or machinery
c. Introduction of any new procedure or operational change
d. Any change to the environment outside the site boundary that could be impacted by the Companies activities.

Risk Matrix Analysis

Methodology

Lagan Materials Ltd. will assign aspects to a ranking matrix based on the probability of occurrence and severity of consequences. Individual matrix cells give an indication of significance.

Step 1:

All possible aspects and impacts will be identified and listed for all processes, activities and areas under normal, abnormal and emergency conditions. Consideration will also be given to past and planned activities.

Step 2:

Lagan Materials Ltd. will categorise each aspect under all identified conditions by probability and severity from the criteria given below. The scores for probability and severity are multiplied together and can then be plotted on the ranking matrix (below).

E.g. probability 3 and severity 4 would be priority 12. The numbers in each cell of the matrix represent ranking for priority to determine which management actions will be taken to control or improve the aspect.

Any aspect that scores a priority of 10 or more is significant and requires management actions (operational control or objectives and targets for improvement).

RANKING MATRIX FOR SIGNIFICANCE EVALUATION:

Probability	V. High	5	5	10	15	20	25
	High	4	4	8	12	16	20
	Medium	3	3	6	9	12	15
	Low	2	2	4	6	8	10
	V. Low	1	1	2	3	4	5
			Trivial	Minor	Moderate	Serious	Major
			1	2	3	4	5
			Severity				

PROBABILITY FACTORS:

1. Very Low: Every 10 years
2. Low: 1 – 10 years
3. Medium: Monthly
4. High: Daily / Weekly
5. Very High: Continuous / Hourly

SEVERITY FACTORS:

1 Very Minor Environmental Damage
2 Minor environmental Damage / Business interruption.
3 Moderate Environmental Damage – nuisance to public.
4 Serious Environmental Damage – Off site clean-up required, possibility of prosecution.
5 Major Environmental Incident – Fatality.

Aspect Evaluation for the Lobinstown Depot

Aspect	Condition	Priority Score	Significant	Reason for Significance
Fugitive Dust Emissions	Normal	P3 x S2 = 6	Y	1 & 2
	Abnormal	P4 x S2 = 8	Y	1 & 2
	Emergency	P4 x S2 = 8	Y	1 & 2
	Past	P3 x S2 = 4	Y	1 & 2
	Planned	P2 x S2 = 6	Y	1 & 2
Dust deposition as a result of emissions could cause off-site nuisance. Limits are in place.				
Discharges to Water	Normal	P2 x S3 = 6	N	
	Abnormal	P3 x S4 = 12	N	
	Emergency	P3 x S4 = 12	Y	1, 3 & 4
	Past	P2 x S2 = 4	N	
	Planned	P2 x S2 = 4	N	
A major fuel spillage could damage flora and fauna and habitat and cause land contamination and could damage groundwater. Controls and limits are in place.				
Groundwater dewatering	Normal	P4 x S3 = 12	Y	1, 3 & 4
	Abnormal	P4 x S3 = 12	Y	1, 3 & 4
	Emergency	P4 x S3 = 12	Y	1, 3 & 4
	Past	P4 x S3 = 12	Y	1, 3 & 4
	Planned	P4 x S3 = 12	Y	1, 3 & 4
Groundwater is used at the site for the wheel-wash, fugitive damping etc.				
Use of resources / Energy consumption	Normal	P4 x S1 = 4	N	
	Abnormal	P2 x S1 = 2	N	
	Emergency	P2 x S1 = 2	N	
	Past	P4 x S1 = 4	N	
	Planned	P4 x S1 = 4	N	
Storage & use of Fuels / Chemicals	Normal	P4 x S2 = 8	N	
	Abnormal	P4 x S2 = 8	N	
	Emergency	P2 x S5 = 10	Y	1 & 4
	Past	P4 x S2 = 8	N	
	Planned	P4 x S2 = 8	N	
Aspect is controlled through the use of proper storage arrangements.				
Resource Usage	Normal	P5 x S1 = 5	N	
	Abnormal	P2 x S1 = 5	N	
	Emergency	P2 x S1 = 2	N	
	Past	P5 x S1 = 5	N	
	Planned	P5 x S1 = 5	N	

Aspect	Condition	Priority Score	Significant	Reason for Significance
Waste Generation	Normal	P4 x S3 = 12	Y	4
	Abnormal	P4 x S3 = 12	Y	4
	Emergency	P4 x S3 = 12	Y	4
	Past	P4 x S3 = 12	Y	4
	Planned	P4 x S3 = 12	Y	4
All waste removed from site will be taken away by fully licensed contractors; copies of waste disposal licence and duty of care documentation will be maintained.				
Noise & vibration	Normal	P4 x S3 = 12	Y	1, 2 & 4
	Abnormal	P4 x S3 = 12	Y	1, 2 & 4
	Emergency	P4 x S3 = 12	Y	1, 2 & 4
	Past	P4 x S3 = 12	Y	1, 2 & 4
	Planned	P4 x S3 = 12	Y	1, 2 & 4
Noise from site activities could cause nuisance. Limits are in place.				
House Keeping	Normal	P4 x S4 = 16	Y	1 & 4
	Abnormal	P4 x S4 = 16	Y	1 & 4
	Emergency	P4 x S4 = 16	Y	1 & 4
	Past	P4 x S4 = 16	Y	1 & 4
	Planned	P4 x S4 = 16	Y	1 & 4
Ecology	Normal	P4 x S2 = 8	N	
	Abnormal	P4 x S2 = 8	N	
	Emergency	P4 x S2 = 8	N	
	Past	P3 x S2 = 6	N	
	Planned	P3 x S2 = 6	N	
Visual Impact	Normal	P2 x S1 = 2	N	
	Abnormal	P2 x S1 = 2	N	
	Emergency	P2 x S1 = 2	N	
	Past	P2 x S1= 2	N	
	Planned	P2 x S1 = 2	N	

Aspect	Condition	Priority Score	Significant	Reason for Significance
Site Security	Normal	P2 x S4 = 8	N	
	Abnormal	P2 x S4 = 8	N	
	Emergency	P2 x S4 = 8	N	
	Past	P2 x S4 = 8	N	
	Planned	P2 x S4 = 8	N	
Ground Contamination	Normal	P2 x S2 = 4	N	
	Abnormal	P2 x S2 = 4	N	
	Emergency	P1 x S5 = 5	N	
	Past	P2 x S2 = 4	N	
	Planned	P2 x S2 = 4	N	
In an emergency situation ground contamination may occur from chemicals/fuels stored on site. Controls in place				
Archaeology	Normal	P2 x S2 = 4	N	
	Abnormal	P2 x S2 = 4	N	
	Emergency	P1 x S5 = 5	N	
	Past	P2 x S2 = 4	N	
	Planned	P2 x S2 = 4	N	
Air Emissions	Normal	P2 x S2 = 4	N	
	Abnormal	P2 x S3 = 6	N	
	Emergency	P3 x S3 = 9	N	
	Past	P2 x S2 = 4	N	
	Planned	P2 x S2 = 4	N	

6.1.3 Compliance obligations

Lagan Materials Ltd. will be responsible for liaising and communicating with the regulatory authorities, local councils and environmental groups.

Lagan Materials Ltd. has produced a register of applicable environmental legislation, which is controlled by an external service provider and is updated annually. Each update will be reviewed by the Head of Planning and Environment / Planning and Environment Officer. These reviews will be recorded and required legislative amendments will be implemented into the EMS.

Lagan Materials Ltd. will aim to meet or exceed all legislative regulations and standards and will adopt monitoring systems to ensure compliance. In the absence of governmental legislation Lagan Materials Ltd. will adopt recognised international standards or will recommend sound environmental practices.

All regulatory authority documents with environmental requirements or conditions are included in Section 3 of the Environmental Management Plan for the site.

6.1.4 Planning action

As discussed in section 6.1.1 a risk analysis review will be performed at the monthly board meeting for any environmental issues that are raised and the resulting actions will form part of the Objectives and Targets. The senior management team will hold an annual environmental management meeting where the Objectives and Targets for the year ahead will be set out and the previous years Targets and Objectives will be reviewed and assessed. The annual environmental management meeting has ten specific areas for discussion and review including risks and opportunities, compliance obligations and environmental aspects. The specific areas for discussion are considered for technological options and financial, operational and business requirements.

6.2 Environmental objectives and planning to achieve them

6.2.1 Environmental Objectives

Lagan Materials Ltd. shall establish and maintain documented environmental objectives and targets at each relevant function and level within the Company. The objectives and targets are set, recorded and reviewed at the annual environmental management meeting.

When establishing and reviewing its objectives, the company shall consider all legal and other requirements, its significant environmental aspects, its technological options and its financial and business requirements, and the views of interested parties.

The environmental objectives established by the Company will be environmental goals, arising from the Company's environmental policy, that the Company will set itself to achieve, and shall be:

- consistent with the environmental policy;
- measurable (where possible);
- monitored;
- communicated;

- updated as appropriate.

6.2.2 Planning actions to achieve environmental objectives

The Company will establish environmental objectives and targets that will be applicable to the production of company products and to ensure that all site activities are in keeping with company policy requirements. Environmental objectives will be achieved by:

- Regularly monitoring the Company performance on an on-going basis and this will be achieved by internal and external environmental audits carried out by trained personnel. This will include auditing compliance with the Companies Environmental Policy;

- Where there are no recognised standards or environmental parameters the Company will establish well defined and where possible quantifiable standards, to ensure environmental concerns are controlled as far as is reasonably practicable. This will be important where there are subjective concerns to deal with or where, as may be the case in overseas operations, no environmental legislation exists;

- Use production methods and processes which have minimum impact on the environment and those affected by the company's operations where practical and where possible develop and improve operations to minimise waste and dispose of it safely to prevent pollution. To this end the Company will where possible or feasible use recycled or sustainable materials;

- Take responsible action to report and correct environmental incidents when they occur and ensure that employees and contractors follow Company policies and report any environmental concerns to facilitate rapid response;

- The Company throughout its operations will use all energy resources conscientiously and efficiently;

- Ensure that industry best practices, techniques and methods are employed and that these are reviewed and implemented when appropriate;

- The Company will seek to communicate and liaise with the local community;

- Wherever possible the Company will seek to influence the customer to adopt cost effective environmentally positive materials and solutions.

When planning how to achieve its environmental objectives, the company will determine:

- what will be done;
- what resources will be required;
- who will be responsible;
- when it will be completed;
- how the results will be evaluated, including indicators for monitoring progress towards achievement of its measurable environmental objectives.

The Senior Management Team are responsible for defining the list of environmental objectives and making any subsequent changes to it. Environmental objectives are reviewed at the annual

Management Review Meeting and at regular interim management meetings where specific trend targets are communicated.

7 SUPPORT

7.1 Resources

The Lagan Materials Ltd. Directors will ensure that sufficient resources are allocated to the EMS to ensure its satisfactory operation and continually improve its effectiveness. This will include internal resource but may also include external resource where necessary.

7.2 Competence

Personnel who are assigned responsibilities defined in the environmental management system and organisational chart are assessed for competency on the basis of appropriate education, training, skills and experience.

The Depot Manager and the Regional Manager will be responsible for identifying training needs. They will ensure that all personnel whose work may create a significant impact upon the environment have received appropriate training covering all aspects of the permit and planning conditions where applicable.

Lagan Materials Ltd. retains appropriate documented information as evidence of competence on file at the site.

7.3 Awareness

The Company will establish and maintain procedures to make its employees and sub-contractors at each relevant function and level aware of the importance of conformance with the Company's environmental policy and procedures and with the requirements of the Company's environmental management system.

The Company will ensure that employees and sub-contractors are aware of the significant environmental impacts, actual and potential of their work activities and the environmental benefits of improved environmental performance.

The Company will ensure that employees and sub-contractors are fully aware of their roles and responsibilities in achieving conformance with the environmental and quality policy, procedures and requirements of the Company's environmental and quality management system. This will include awareness of emergency preparedness and response requirements and the potential consequences of departure from specified operating procedures, including not fulfilling the organisations compliance obligations.

All members of staff will be made fully aware of the operational procedures and methods used by the Company to ensure that the environmental impact of its operations will be minimised. Staff will be aware of the requirements of the quality system.

This will entail ensuring that the person chosen to perform a task which could cause significant environmental impacts is competent on the basis of appropriate education, training and/or experience.

7.4 Communication

7.4.1 General

The company will establish, implement and maintain the procedures needed for internal and external communication relevant to the EMS including:

- on what it will communicate;
- when to communicate;
- with whom to communicate;
- how to communicate.

Communication of information will be categorised as external or internal.

7.4.2 Internal communication

The Company has identified the importance of communication with respect to the functioning of it's EMS and have identified the following points as important to communicate:

1. Environmental Policy and Lagan Materials Ltd. corporate profile that is committed to achieving certification to ISO 14001 in all Companies within the Group.
2. Established Targets and Objectives
3. Measurable environmental performance evaluation such as recycling, energy and fuel savings etc.
4. Independent verification of communicated results.

Internal communication will or can take the following forms:

1. The Regional Manager & Operations Director report on a monthly basis to the Lagan Group Board member responsible for environment. At this meeting an update on environmental matters will be provided and this meeting will be minuted and timescales and agendas set for subsequent meetings. This will be the main top down and down up means of communication.
2. The Board can be contacted at anytime in the case of emergency situations.
3. Internal memo's and network e-mail system communicate all internal information and it is Corporate Policy to utilise this means of communication, as it is secure, fast, traceable and recorded. This will be the main means of communication at a managerial level.
4. Communication to persons / employees who do have access to the network will be by payslip inserts, verbal discussions, issued operational procedures and notice boards.
5. Internal audits and associated interviews will also be used as a means of communication both to and from employees.
6. A statement of compliance with the requirements of the sites permits will be communicated at monthly management meetings.

7.4.3 External communication

External communication will be concerned primarily with communication with the Local Authority, local residents and adjacent businesses including farmers.

External communication will or can take the following forms:

1. Face to face meetings
2. Specific written communication
3. E-mail where appropriate.
4. Phone calls. These calls will be recorded.

5. Lagan Group publications and press releases will be used to highlight the fact that Group policy is for all 'in house' Companies to achieve ISO 14001.

The communication processes for the company will consider its compliance obligations and ensure that communicated environmental information is reliable and consistent with information generated within the EMS. The company will respond to relevant communications on its EMS and shall retain documented information as evidence of its communications.

7.5 Documented information

7.5.1 General

The Company will establish and maintain information that will describe the 'core' elements of the management system and their interaction and will, through the documentation provide direction to the related documentation.

The Company will establish and maintain procedures and will be able to demonstrate the systems in place to ensure that environmental reports required by government regulations and policies are routinely prepared and submitted, as appropriate, on a timely basis.

7.5.2 Creating and updating

All documentation will be created to ensure appropriate identification and description, format and media. Documented procedures have been established to:

• Approve documents for adequacy prior to issue.

• Review and update as necessary and re-approve documents.

• Ensure that changes and that the current revision status of documents are identified.

• Ensure that relevant versions of applicable documents are available at points of use.

• Ensure that documents remain legible, readily identifiable.

• Ensure that documents of external origin are identified and their distribution controlled.

• Prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

7.5.3 Control of documented information

The Company will establish and maintain procedures for controlling all documents required by the ISO 14001 standards to ensure that documents are:

1. Easily located and retrievable.
2. They are made as soon as is reasonably practicable.
3. They will be periodically reviewed, revised as necessary and approved for adequacy by authorised personnel.
4. The current versions of relevant documents will be available at all locations where operations essential to the effective functioning of the system are performed.

5. Obsolete documents will be removed promptly from all points of use or otherwise to assure against unintended use.
6. Obsolete documents will be retained for legal and or knowledge preservation purposes and will be suitably identified.
7. A specific file will be established for Environmental documentation including monitoring reports, checklists and communication details with Environmental Protection Agency, Council, etc.

Documentation will be legible, dated (with dates of revision) and readily identifiable. They will be maintained in an orderly manner and will be retained for a period of time specified as specified in the Document Control Matrix/Table.

Procedures have been established concerning the creation and modification of the various types of document. These procedures are detailed below:
• The EMP manual, master copy (Issue 01) will be filed at the relevant site and a copy will be available at the Company headquarters.
• The amendment number of the EMP Manual will only change when an amendment had been made to the text or layout of the document itself. This amendment must be agreed by all parties involved.
• The Depot Procedures will each have an amendment number. This number will be clearly stated in the Depot Procedure Contents Page.

8 OPERATION

8.1 Operational planning and control

The company will carry out the following to ensure a consistent life cycle perspective:
- establish controls as appropriate to ensure its environmental requirements are addressed in the design and development process for the product or service considering each life cycle;
- determine its environmental requirements for the procurement of products and services;
- communicate its relevant environmental requirements to external providers and contractors;
- consider the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its products and services.

The Company will wherever possible adopt procedures based on the Pollution Prevention Guidelines including the measures outlined below.

Management & site control

A copy of the Environmental Policy Statement will be displayed in the weighbridge or other appropriate location. All work will be carried out in compliance with the Company's Health and Safety requirements.

The Company will, at the planning stage, define all methods of working to prevent the potential of pollution in all its forms.

Rules defined for the site set out in the sites permit conditions form the key operational issues of operating hours, site contacts, approved site extents and operating plans, monitoring and reporting requirements.

Human Beings

The likely significant direct effects on human beings associated with the site relate to potential impacts on water, air quality, noise, landscape change, and public and employee health and safety. Indirect impacts relate to potential effects on flora and fauna. These impacts are addressed as follows:

• Fencing will be maintained around the lands being excavated for the safety of the general public and to prevent livestock straying into the excavated areas.
• All work will be carried out in compliance with the Company's Health and Safety requirements.
• The nature and extent of potential impacts envisaged in respect of water, air quality, noise and landscape are addressed in detail in the Depot Procedures for the site presented in Section 2 of the Environmental Management Plan.

There are specific conditions relating to management, monitoring and control of site ecology, surface water discharges, trade effluent discharges and groundwater dewatering and management, air quality and air emissions management, noise and vibration, landscaping, traffic and archaeology all of which are covered I the Depot Procedures.

Incidents, Communications and Complaints

A Log of all communications received from and issued to the Public will be maintained. In particular, records will be maintained to document any environmental concerns raised by members of the local community. The Company will investigate, take samples as appropriate and provide feedback by way of corrective actions and communication with the interested party as appropriate.

Fuel, Oil, Bitumen and Chemical Storage

The Depot manages the storage of fuels and chemicals in accordance with Depot Procedure – Management of Fuel, Oils, Bitumen and Chemical Storage.

Energy Consumption

Using energy efficiently and thereby reducing unnecessary pollution is recognised as one of the most effective ways of slowing down global warming. There is a specific Depot Procedure developed to deal with energy conservation methods.

Waste Management

The Waste Management Depot Procedure details how waste management is carried out.

8.2 Emergency preparedness and response

In order to prevent and mitigate the environmental impacts of accidents and emergency situations the Company has established and maintains procedures to identify and respond to these situations. The Emergency Preparedness and response Depot Procedure details how this function is managed.

The Company will review and revise, where necessary its emergency preparedness and response procedures. Special emphasis will be placed on such reviews and revisions should an accident or emergency situation actually arise.

Where practical or applicable to do so the Company will periodically test these procedures.

In addition to emergency response procedures developed the Company will provide staff with emergency and event–based instructions. Management will also ensure that if an employee is absent from work that his or her roles in an emergency event is reassigned to another adequately trained employee.

9 PERFORMANCE EVALUATION

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

Checking and corrective actions will be used by the Company to evaluate its performance with respect to established targets and objectives.

To enable the Company to comply with all conditions and objectives and to track environmental performance, relevant to operational controls and conformance with the Company's objectives and targets, documented procedures will be established and maintained to monitor and measure on a regular basis the key characteristics of its operations and activities that have a significant impact on the environment.

All inspection, measuring and test equipment used by the Company will be calibrated and maintained in a manner that will ensure that measurements taken can be verified.

Procedures will be established and maintained describing how each item of measuring equipment is calibrated and maintained.

The Company will establish and maintain procedures for periodically evaluating compliance with relevant environmental legislation and regulations. The detailed procedures to be followed, in respect of monitoring for the purpose of demonstrating compliance with Permits/Licences etc are outlined in Depot Procedures Manual. Monitoring procedures, recording and reporting procedures and specific procedures for dealing with non-compliances and corrective actions are outlined in these procedures.

The company will communicate its relevant environmental performance information both internally and externally as required and will also retain documented information as evidence of the monitoring, measurement, analysis and evaluation results.

9.1.2 Evaluation of compliance

Consistent with its commitment to compliance, the Company will periodically evaluate compliance with applicable legal requirements and other requirements to which it subscribes and will maintain records of these evaluations. The company will also maintain a knowledge and understanding of its compliance status.

The company will prepare an Annual Compliance report which will evaluate compliance with all the site specific legal and other requirements relative to the environment.

9.2 Internal audit

9.2.1 General

The Company places great emphasis on the importance and need for regular internal auditing of the EMS. To this end and to comply with the requirements of ISO 14001 the Company will establish and maintain procedures for ensuring that management system audits are carried out in order to achieve the following goals:

a) To determine whether or not the environmental management systems are conforming to planned arrangements for environmental management. (including the requirements of ISO 14001)

b) To determine whether or not the system has been properly implemented and maintained.

9.2.2 Internal audit programme

Results of internal and external audits will be used to provide information to management as a means of improving the system and ensuring that adequate measures are taken to ensure that audit findings are acted upon in a manner that is effective and designed to prevent reoccurrence were this is applicable.

This procedure covers the conduct of internal quality audits of the EMS in all areas of the Company's activities, to ensure that the EMS is systematically reviewed on a regular basis to check its continuing suitability and effectiveness.

1 The Head of Planning and Environment shall establish an Internal Audit Schedule covering all elements of the Environmental Management System and at least one site per set of audits. The timescale should be such that all elements of the System are audited at least twice per year.

2 Audits will normally be carried out by the Operations Director or Auditor however; other appropriately trained personnel may carry out audits in areas other than their own.

3 The audit shall be conducted against the agreed check sheet and audit findings recorded on the check sheet.

4 Prior to the audit the auditor shall check any areas of outstanding action from any previous audit and add these to the check sheet.

5 Audit findings shall be discussed with the personnel in the area under audit. Deficiencies and corrective actions required, together with the target dates for implementation, shall be recorded on the Internal Audit Report form.

6 Internal Audit Report Forms are maintained by the Head of Planning and Environment and confirmation of deficiencies and corrective actions notified verbally to the person responsible by the Auditor.

7 Progress on the implementation of agreed corrective actions shall be monitored by the Head of Planning and Environment at monthly intervals by reference to the Report Forms. Where actions are not completed the Audit Report form shall be forwarded to the Managing Director for appropriate action.

8 On completion of all actions the report shall be filed for evaluation as part of the Management Review of the EMS.

9.3 Management review

Lagan Materials Ltd. will review the integrated management system at twelve monthly intervals. This review will be comprehensive, documented and will assess all elements of the system.

The review will ensure that:

- the system is effective and complies with the requirements of ISO 14001;
- that sufficient information is available to adequately review the system;
- that the environmental and quality policy statements are still applicable to the Company;
- targets and objectives are being met or require to be changed in light of results of internal audits, changing circumstances, contractual obligations or the need to demonstrate commitment to continual improvement;
- that any system non-conformances, complaints from third parties, legislative non-compliance and audit findings both internal and external have been adequately dealt with and that corrective and preventive actions taken to prevent reoccurrence have been effective.

The management review shall include consideration of:

a) The status of actions from previous management reviews;
b) Changes in:
   1) External and internal issues that are relevant to the environmental management system;
   2) The needs and expectations of interested parties, including compliance obligations;
   3) Its significant environmental aspects;
   4) Risks and opportunities;
c) The extent to which environmental objectives have been achieved.
d) Information on the organisation's environmental performance, including trends in:
   1) Nonconformities and corrective actions;
   2) Monitoring and measurement results;
   3) Fulfilment of its compliance obligations;
   4) Audit results;
e) Adequacy of resources;
f) Relevant communication(s) from interested parties, including complaints;
g) Opportunities for continual improvement.

The outputs of the management review shall include:

- Conclusions on the continuing suitability, adequacy and effectiveness of the environmental management system;
- Decisions related to continual improvement opportunities;
- Decisions related to any need for changes to the environmental management system, including resources;
- Actions, if needed, when environmental objectives have not been achieved;

- Opportunities to improve integration of the environmental management system with other business processes, if needed;
- Any implications for the strategic direction of the organisation.

10 IMPROVEMENT

10.1 General

Lagan Materials Ltd. plan and manage the processes necessary for the continual improvement of the environmental management system. The company facilitates the continual improvement of the EMS using their environmental policy, environmental targets and objectives, audit results, corrective and preventive actions and management reviews.

10.2 Non-conformity and corrective action

The Company will establish and maintain procedures for defining responsibility and authority for dealing with and investigating non-conformance, taking action to mitigate any impacts caused and for initiating and completing corrective and preventive action.

Any corrective and preventive action taken to eliminate or minimise the causes of actual or potential non-conformance will be appropriate to the magnitude of problems and proportional with the impact encountered.

The Company will implement and record any changes in the documented procedures resulting from corrective and preventive action.

In addition, the Company will establish procedures to address the following aspects of non-conformance issues

• Tracking and reporting of all compliance issues.
• Planning of corrective action
• Establishing resolution due dates
• Assignment of responsibilities for corrective and preventive action
• Follow-up and tracking systems to verify corrective and preventive actions were implemented and were effective
• Identification of recurring issues, root cause analysis, underlying causes and compliance trends
• Planning of actions to prevent recurrence of compliance issues
• Communication with the regulatory authority on Environmental issues

A pro-forma non-conformance report will be completed in the event of a non-conformance, this will be completed by the Depot Manager (or an appointed deputy) and only signed off when the corrective action taken to prevent recurrence has proven to be effective. The implementation of the corrective action should not be deemed to have been completed until the effectiveness of all the above has been demonstrated and any changes in procedure, documentation etc. completed.

The detailed specific procedures for dealing with environmental non-compliances and corrective actions are outlined in the Depot Procedures Manual.

Regular scheduled process reviews will take place rather than simply correcting problems after they occur. This element of the EMS will include identification of systematic problems with the implementation of the EMS as well as non-compliance with regulations and legislative requirements. Lagan Materials Ltd. will retain documented information as evidence the nonconformities and any subsequent actions taken and the results of any corrective action.

10.3 Continual improvement

Lagan Materials Ltd. will continually improve the suitability, adequacy and effectiveness of the environmental management system to enhance environmental performance by implementing the findings of the review of the EMS carried out as part of the annual environmental management meeting.

LAGAN MATERIALS LTD.

AUGHAMORE, CO SLIGO

ISO 14001: 2015

2. DEPOT PROCEDURES MANUAL

AMENDMENT RECORD

Depot Procedure No.	Depot Procedure Title	Amendment No.	Date of Issue	Review Date
DP001	Air Quality & Air Emissions Management	1	01.02.2017	05.05.2021
DP002	Energy Management	1	01.02.2017	05.05.2021
DP003	Waste Management	1	01.02.2017	05.05.2021
DP004	Emergency Preparedness & Response	1	01.02.2017	05.05.2021
DP005	Legislation Management	1	01.02.2017	05.05.2021
DP006	Fuel oil, Bitumen & Chemical storage	1	01.02.2017	05.05.2021
DP007	Oil Interceptor Management	1	01.02.2017	05.05.2021
DP008	Water Management	1	01.02.2017	05.05.2021
DP009	Ecological Management	1	01.02.2017	05.05.2021
DP010	Noise & Vibration Management	1	01.02.2017	05.05.2021
DP011	Landscape & Visual Impact	1	01.02.2017	05.05.2021
DP012	Traffic Management	1	01.02.2017	05.05.2021
DP013	Archaeology Impact Management	1	01.02.2017	05.05.2021
DP014	End-of-Life Plant Management	1	01.02.2017	05.05.2021
DP015	Site Security	1	01.02.2017	05.05.2021
DP016	Contractor Management	1	01.02.2017	05.05.2021
DP017	Communications, Incidents & Complaints	1	01.02.2017	05.05.2021
DP018	Corrective & Preventive Actions	1	01.02.2017	05.05.2021
DP019	Site Inspection Checklists	1	01.02.2017	05.05.2021
DP020	Accident Prevention Policy	1	01.02.2017	05.05.2021

DP001 Air Quality and Air Emissions Management

Scope: This procedure defines the specific conditions relating to management, monitoring and control of air emissions and air quality which are contained in the sites Licensing Permits and Authorisations.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Lagan Materials Ltd. operates to ensure that dust levels associated with the activities at the site do not cause adverse impacts at sensitive locations. The controls and mitigation measures for minimisation of impacts on air quality as a result of dust generated include the following:

- A wheel wash facility shall be used at the entrance to the site;
- Fixed and mobile water sprays shall be used to control dust emission from material stock piles, road and yard surface as necessary in dry and/or windy weather. Records shall be maintained on the water spraying schedule;
- Trucks entering and leaving the site with dusty materials shall be covered and they shall pass through a wheel wash before exiting the site;
- A daily inspection programme shall be formulated and implemented in order to ensure that dust control measures are inspected to verify effective operation and management. Findings shall be recorded on the Daily Site Inspection Sheet;
- Dust deposition monitoring shall be carried out in accordance with the requirements of the authorisation permits in order to verify the continued compliance with relevant standards and limits.
- Plant and conveyers should be operated to minimise dust generation by ensuring all dust mitigation functions such as dust covers, wind boards, netting, extraction and collection systems are all functioning correctly. Regular visual inspections shall be carried out on all such plant and equipment.
- Under-trays and chutes should be provided to collect material dropping from conveyors. The height of free-fall of material from the under-tray should be minimised.
- Blowers, belt-scrapers or other devices should be fitted to clean conveyors to prevent build-up of spillage. Spillage should be cleared promptly.

Odour monitoring where required shall be carried out at representative off-site locations during operating hours of any activity that could result in off-site odours (eg asphalt plant operation) to ensure that all operations on site are being carried out in a manner such that odours do not result in impairment of or interference with amenities or the environment beyond the site boundary. All odour inspections carried out around the vicinity of the site shall be recorded on the Odour Assessment Check Sheet.

3. Monitoring and Reporting

Environmental monitoring reports will be prepared by external consultants and shall contain all information as required by the various conditions set out in the permissions. A hardcopy report with the results assessed against the permit limits will be issued to the permitting authority and also to the site. A soft-copy will be issue to the Lagan Materials Ltd. head office.

4. Corrective Actions

If a dust monitoring result or air emission monitoring result is out of compliance or if an odour is identified within the vicinity of the site, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP002 Energy Management

Scope: This procedure defines the specific conditions relating to energy management for all activities at the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Lagan Materials Ltd. operates to ensure that energy usage associated with the site is minimised through the implementation of focused energy-saving procedures. Energy use shall be minimised by the adoption of energy efficient practices including the routine servicing of plant such as mobile generator units and vehicles. The Company will ensure that the following measures are considered and care is given to how energy is as far as is reasonably practicable on all contracts:

- Lighting levels should be appropriate for each task;
- Use the most efficient and up-to-date type of lighting;
- All external lighting should be maintained in a clean condition;
- Make best use of daylight by keeping windows and roof lights clean;
- Routine servicing and maintenance of all plant to ensure efficient energy consumption at all times;
- Conveyors and other parts to be shut down when not in use;
- Sufficient lubrication on all machinery and drives;
- Use of dry sand where possible to reduce energy inputs;
- Turn off all water taps completely and report any leak or drip as soon as discovered;
- Switch off any appliance or item of equipment which is not being used;
- Heated storage tanks, process pipework and vessels should be at the correct temperature and adequately insulated;
- Inlet filters on compressors should not be blocked and compressor houses well ventilated;
- Machinery and drives should be properly lubricated and not allowed to run unnecessarily.

3. Monitoring and Reporting

Records of fuel consumption per tonne of production are generated on a monthly basis for the site. This information is utilised to show performance of the plant on a monthly basis and is included in the annual appraisal for the site. This statistical information is recorded and filed at Lagan Materials Ltd. head office.

A summary of monitoring data and energy usage shall be prepared and included in the Annual Environmental Report prepared for the site. This report will be available for consultation at the Site Office on request.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP003 Waste Management

Scope: This Procedure sets out the operating instructions that shall be followed to ensure that all waste, hazardous and non-hazardous, is stored and disposed of in accordance with the relevant waste legislation.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

The targets for waste management are to ensure that waste generation is minimised, that waste is stored in an environmentally protective manner and that waste disposal is in accordance with regulatory requirements. Daily and weekly inspections of the site shall be completed to ensure waste management is correctly carried out at the site and shall be recorded in the site inspection sheets.

The Company will take whatever action is deemed necessary to comply with legal requirements, whilst in addition do what is practicable and commercially viable to minimise waste. A policy of Reduce, Reuse, Recycle shall be encouraged with all employees

2.1 Waste Segregation and Storage

A system of bins and skips will be used to segregate waste. The following sections identify the types of waste that can be expected and identifies storage and disposal requirements for each.

Non-Hazardous Wastes likely to be generated for disposal off-site include the following: domestic waste, food, paper, plastic, cardboard, packaging, clean timber, road sweepings, sewage effluent waste, metals, tyres and sludge.

Hazardous Wastes likely to be generated for disposal off-site include the following: waste oils, oil contaminated materials, oily water, batteries, Waste Electrical and Electronic Equipment (WEEE), printer toner cartridges, oil filters, light bulbs, aerosols, interceptor sludge, interceptor sludge, contaminated soils, waste resin and paint tins.

Waste shall be properly segregated and contained in appropriate containers (skips, bins, bags etc) and covered where required to prevent water ingress or vermin damage and stored in dedicated waste storage areas. Waste storage containers shall be clearly labelled and bunded where required. Waste shall be identified as recyclable, non-hazardous or hazardous.

2.1 Waste Documentation

All waste contractors collecting and removing waste from the site must have a current valid Waste Collection Permit and the Waste Facility Permit details of the location that the waste is going to. A copy of the Waste Collection Permit and the Waste Facility Permit shall be kept on file at the Lagan site for all waste contractors involved in removing and/or receiving any wastes from the site. Prior to consigning any waste off-site the following actions must be considered and completed:

- Determine the nature of the waste and determine if a hazardous or a non-hazardous waste contractor is needed;
- Examine the credentials of prospective waste contractors and the suitability of their services and facilities for handling and managing the waste;
- The waste haulage contractor who collects your waste must hold a valid waste collection permit from the relevant local authority;
- The waste management facility that your waste is destined for must hold either a valid Waste Facility Permit or Waste Licence;

- Inform your waste contractor of the safe working procedures on-site and any temporary hazards associated with the collection and handling of the waste;
- Seek and record documentary proof of waste receipt and final disposal/recovery from the waste contractor and any other parties involved.

The documentation that is required for each waste consignment leaving the site shall be checked for the following before final signing and approval:

- Address: Ensure the correct address of the site the waste is departing from is used;
- Waste Description: Ensure the waste is correctly described and has the correct 6 digit EWC code assigned. The description needs to provide enough information to enable subsequent holders to avoid mismanaging the waste or causing injury;
- Quantity and Containment: Ensure the type of container (skip, bin) and capacity volume ($10m^3$) and/or waste weight (500 kg) is recorded;
- Waste Carrier Details: Ensure the name, address and Waste Collection Permit Number of the waste carrier removing the waste form the site is recorded;
- Waste Receiver Details: Ensure the name, address and Waste Permit Number or Waste Licence number of the next destination/recipient of the waste is recorded;
- Date and time of transfer;
- Signatures of the waste carrier and the authorised Lagan depot personnel.

The waste transfer note copy shall be retained and kept on file at the Lagan site for two years and hazardous waste consignment notes shall be kept for three years after date of removal from the site.

3. Monitoring and Reporting

Details of all wastes generated for recovery or disposal on or off the site must be recorded. Records shall include the quantity of waste for disposal or recovery, description and nature of the waste, the EWC code, contractor details, method of disposal, date of dispatch and documentation reference numbers in relation to the waste consignment. The Waste Record Sheet Form shall be used for recording details of quantities of waste generated, recovered and disposed of on a daily basis or otherwise as required. The purpose of the records is to identify areas for waste reduction, to track the quantities of waste being recovered and to provide the necessary documentation to demonstrate that regulatory requirements for waste disposal are being complied with.

A summary of all waste statistics shall be prepared and an Annual Report shall be compiled for inclusion in the Annual Environmental Report for the site. This report will be available for consultation at the Site Office on request.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with Corrective Action Depot Procedure.

DP004 Emergency, Preparedness and Response

Scope: This Emergency Response Procedure sets out the procedure for dealing with environmental emergencies during the activities at the facility.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

At all times, there shall be at least one person responsible for co-ordinating emergency measures at the site. The Emergency Co-ordinator shall be thoroughly familiar with this procedure, the Emergency Plan, all operations and activities on site and the location of emergency response and spill clean-up equipment.

2.1 Spills and Leaks

In the event of a chemical or oil or fuel spillage, the Emergency Co-ordinator is notified and is responsible for managing the spill. The following major actions shall be taken:

- The Emergency co-ordinator will determine the exact source of the spill or leak and the area affected. External emergency aid will be immediately summoned if required;
- Any source of ignition will be eliminated eg equipment that sparks, naked flames, hot surfaces in the spill area and all areas immediately downwind of the spill area;
- The Spill Crew wearing appropriate protective equipment as designated by the Emergency co-ordinator will remedy and stop the source of the spill if safe to do so (seal off visible leaks, turn off pumps etc);
- The area of the spill will be immediately contained (to prevent contamination of the surface water or groundwater) by the use of containment booms if the spill is not already within a fixed containment bund;
- The spill material will be absorbed using absorbent granules/material. This material will be contained and will be treated as hazardous waste for disposal.

An adequate supply of containment booms, absorbent granules, containers, clean up materials and protective equipment shall be stored on site at all times.

2.2 Fire

In the event of a fire the firm alarm should be sounded by activating the nearest alarm. On hearing the fire alarm all personnel must evacuate the building by the nearest exit and assemble at the site entrance just in front of the weighbridge. If safe to do so and if trained to use a fire extinguisher then tackle the fire. If the fire cannot be controlled then the fire services should be called. The water used for extinguishing any fire shall be contained if possible for assessment before disposal or discharge through the surface water drainage system.

2.3 Surface Water Contamination

Surface water contamination may arise on site from a number of sources; these include greases, oils, fuel, chemical spill or suspended solids. In the event of surface water contamination immediate action shall be taken to stop the flow of contamination into the receiving water. Where there has been a discharge of oils or greases, oil booms and/or mats shall be used as necessary to remediate the surface water contamination and the mats disposed of according to the procedure for waste oil disposal.

2.4 Groundwater Contamination

In the unlikely event of groundwater contamination arising onsite, immediate action shall be taken to stop the flow of contamination into the area that is seeping to groundwater. If the source is not identifiable then an investigation shall be instigated until the source is identified. The extent of contamination shall be assessed and a clean-up programme

shall be implemented where necessary. An investigation shall be carried out as to the cause of the contamination and corrective actions will be taken to prevent a re-occurrence.

2.5 Flooding

In the event of flooding at the site all electrical components should be powered down and isolated where possible. The Emergency Co-ordinator should be immediately notified. All bunded areas should be checked to ensure their integrity. The fire brigade should be called if the situation is classified as an emergency and all site personnel should assemble at a safe location outside of the site. The fire services will handle the emergency situation and all site personnel should remain off site until the fire services authorise a return to the site.

2.6 Power Failure

In the event of a power failure at the site the electrical supply company should be notified immediately. The emergency shut down procedure for the various plant items should be followed and an inspection of the entire site should be carried out to ensure that there are no possible sources of pollution at the site due to the power loss. The site manager should be immediately informed and is responsible for ensuring the safe return of power supply the site.

3. Emergency Equipment

An oil spill kit(s) and a hazardous/non-hazardous spill kit(s) shall be held on-site at all times and shall include absorbent pads, booms and mats and disposable bags and ties. These kits shall be replaced immediately following their use during an emergency.

4. Monitoring and Reporting

The company will immediately notify the relevant licensing authority of the occurrence of any incident including:
(i) an emergency;
(ii) any emission which does not comply with the requirements of the licence;
(iii) any indication that environmental pollution has, or may have, taken place.

The incident notification form for the EMP shall also be filled out and shall include the following information:

- Date and time of incident;
- Details of the incident and circumstances giving rise to it;
- An evaluation of environmental pollution caused if any;
- Actions taken to minimise the effects on the environment;
- Steps taken to avoid recurrence;
- Any other remedial action taken.

A report on incidents shall be prepared and an Annual Report shall be compiled for inclusion in the Annual Environmental Report. This report will be available for consultation at the Site Office on request.

5. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP005 Legislation Management

Scope: This procedure defines the management of environmental legislation for all activities at the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Lagan Materials Ltd. shall be responsible for liaising and communicating with the regulatory authorities, local councils and environmental groups and ensuring familiarity with all relevant environmental legislation applicable to the site and its activities. The company shall also be responsible to ensure that updates and changes to relevant environmental legislation and all new relevant environmental legislation are considered and accounted for in the operations and activities at the site.

Lagan Materials Ltd. maintains a register of applicable environmental legislation on its filing system at head office, which is controlled by means of an external service provider. The company provides a review and update of all relevant environmental Legislation each quarter for the Lagan Materials Ltd. group operations. Each update shall be reviewed by the Head of Planning and Environment. These reviews shall be recorded and required legislative amendments where applicable will be implemented into the EMS.

Lagan Materials Ltd. shall aim to meet or exceed all legislative regulations and standards and shall adopt monitoring systems to ensure compliance. In the absence of governmental legislation Lagan Materials Ltd. shall adopt recognised international standards or will recommend sound environmental practices.

3. Evaluation of Compliance

The Company will prepare an Annual Compliance report which will evaluate compliance with all the site specific legal and other requirements relative to the environment. The compliance rate for the site will be evaluated by reviewing the non-compliances issued and the rate of failure to meet site Permission Limits and Conditions. The compliance rates are evaluated every quarter for the Group Board Meetings and also for the annual environmental review meeting for the site.

DP006 Fuel Oil, Bitumen and Chemical Storage

Scope: This procedure defines specific conditions relating to the sourcing, acceptance and storage of fuel, oil, bitumen and chemicals to ensure the protection of the environment and public health.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

All fuels and oils purchased for use at the facility shall be sourced from a company which has been approved by Lagan Materials Ltd. head office. All suppliers shall be either ISO9001 accredited or the supplier shall be audited by or on behalf of Lagan Materials Ltd. prior to addition to approved suppliers list. Every batch of reprocessed oil received at the depot must be accompanied by a test certificate; otherwise the batch will not be accepted. These certificates shall be filed at site office and made available for inspection if necessary. The relevant Test Specifications are attached to this procedure as Acceptance Criteria for Thompsons and Acceptance Criteria for ENVA.

The fuel oil stores shall be bunded to 110%. Overfill protection mechanisms shall be installed on all fuel tanks. Refuelling operations shall only take place in suitably protected hard stands near the fuel tanks and any accidental spillages shall be contained using absorbent booms as stated in procedure DP004.

Bund integrity testing shall be carried out by a suitably qualified independent consultant at least every three years. The test procedure shall include the following:

- A thorough inspection of the bund;
- A photographic record of defects and other relevant issues of note;
- A bund integrity test in accordance with BS8004 shall be carried out at 3 year intervals or sooner if visual inspection indicates a potential requirement;
- On completion of the test and review of the data a detailed test report shall be prepared and held onsite for inspection and review.

Water or other liquid collected in the bund will be tested to determine its suitability for disposal. If there is visible oil present, the waste will be disposed as hazardous waste as described in Procedure DP003. If testing shows that the liquid is not contaminated, it may be disposed by diverting it to the interceptor.

3. Monitoring and Reporting

A report on any integrity testing completed at the site shall be prepared and included in the Annual Environmental Report. Both reports will be available for consultation at the Site Office on request.

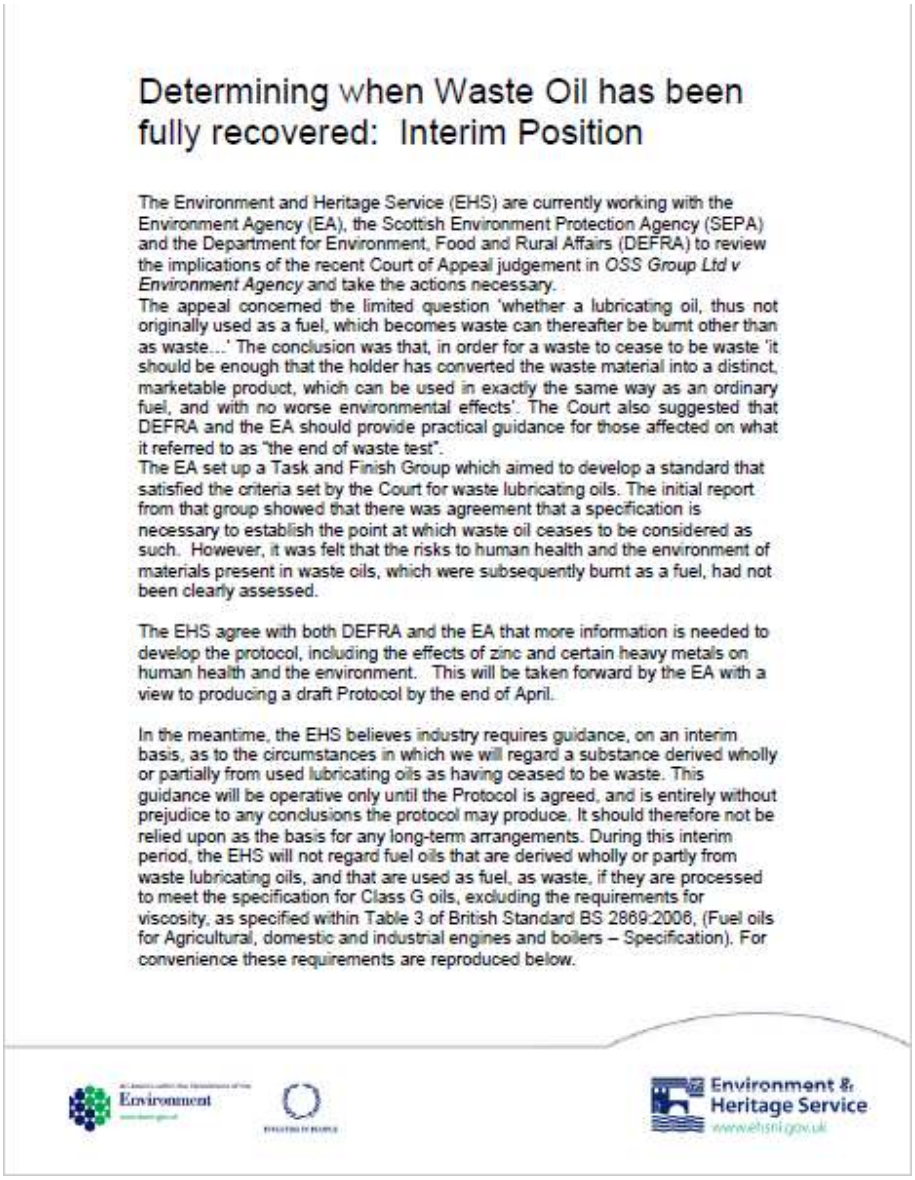
4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

5. Attachments

Acceptance Criteria for Thompsons
Acceptance Criteria for ENVA

Acceptance Criteria for Thompsons



Determining when Waste Oil has been fully recovered: Interim Position

The Environment and Heritage Service (EHS) are currently working with the Environment Agency (EA), the Scottish Environment Protection Agency (SEPA) and the Department for Environment, Food and Rural Affairs (DEFRA) to review the implications of the recent Court of Appeal judgement in *OSS Group Ltd v Environment Agency* and take the actions necessary.

The appeal concerned the limited question 'whether a lubricating oil, thus not originally used as a fuel, which becomes waste can thereafter be burnt other than as waste…' The conclusion was that, in order for a waste to cease to be waste 'it should be enough that the holder has converted the waste material into a distinct, marketable product, which can be used in exactly the same way as an ordinary fuel, and with no worse environmental effects'. The Court also suggested that DEFRA and the EA should provide practical guidance for those affected on what it referred to as "the end of waste test".

The EA set up a Task and Finish Group which aimed to develop a standard that satisfied the criteria set by the Court for waste lubricating oils. The initial report from that group showed that there was agreement that a specification is necessary to establish the point at which waste oil ceases to be considered as such. However, it was felt that the risks to human health and the environment of materials present in waste oils, which were subsequently burnt as a fuel, had not been clearly assessed.

The EHS agree with both DEFRA and the EA that more information is needed to develop the protocol, including the effects of zinc and certain heavy metals on human health and the environment. This will be taken forward by the EA with a view to producing a draft Protocol by the end of April.

In the meantime, the EHS believes industry requires guidance, on an interim basis, as to the circumstances in which we will regard a substance derived wholly or partially from used lubricating oils as having ceased to be waste. This guidance will be operative only until the Protocol is agreed, and is entirely without prejudice to any conclusions the protocol may produce. It should therefore not be relied upon as the basis for any long-term arrangements. During this interim period, the EHS will not regard fuel oils that are derived wholly or partly from waste lubricating oils, and that are used as fuel, as waste, if they are processed to meet the specification for Class G oils, excluding the requirements for viscosity, as specified within Table 3 of British Standard BS 2869:2006, (Fuel oils for Agricultural, domestic and industrial engines and boilers – Specification). For convenience these requirements are reproduced below.

Environment

Environment & Heritage Service
www.ehsni.gov.uk

Acceptance Criteria for Thompsons

Properties of residue-containing burner fuels

Property	Class G	Test Method
Kinematic Flash point (Pensky-Martens closed cup) (°C) (min)	66.0	BS2000-34
Sulfur content [% (m/m)] (max)	1.0	BS2000-336
Water content [%(V/V)] (max)	1.0	BS2000-3374
Ash content [%(m/m)] (max)	0.15	BS2000-4
Carbon residue [micro0 [%(m/m)](max)	20.0	BS2000-398
Total sediment (existent) [% (m/m)] (max)	0.15	BS2000-375
Strong acid number	Zero	BS2000-336

This position reflects the minimum requirements to enable optimal performance of burners/boilers using Heavy Fuel Oil as a fuel. It is not appropriate to require compliance for viscosity, as oils derived from waste lubricants will inevitably have a different viscosity and it would be unfair to penalise them for this.
The oil supplier and users are responsible for demonstrating that reprocessed oil meets the required specification. Reprocessed oils that do not meet the required specification will remain waste, and their movement and subsequent burning as fuel without compliance with the national controls in place to fulfil the requirements of the Waste Framework Directive, the Hazardous Waste Directive and the Waste Incineration Directive will constitute a criminal offence.

Please note that where an installation receiving such a fuel is permitted under the Pollution Prevention and Control Regulations (NI) 2003 or the Industrial Pollution Control (NI) Order 1997, additional requirements may apply and you should contact the Industrial Pollution and Radiochemical Inspectorate (IPRI) of EHS on 02890 569299.

If you have any queries about this note, please contact the EHS's Hazardous Waste team on 028 90 569710.

Acceptance Criteria for ENVA

enva

11LS Fuel Oil

Product Specification

Properties	Method	Limit	Typical
Density	IP 160	NL	0.89
Water (% v/v)	IP 74	NL	1-3
Viscosity @ 40 ° C	IP 71	NL	140-220
Ash (% w/w)	IP 4	1.5	0.7
Sediment by Extraction (% w/w)	IP 53	NL	0.4
Sulphur (% w/w)	IP 373/86	<1.0	0.8
P.C.B. (p.p.m.)	ASTM D4059-96	1	<1
Lead (p.p.m.)	A.A	800	50
Vanadium (p.p.m.)	A.A	100	5
Cadmium (p.p.m.)	A.A	25	4
Chromium (p.p.m.)	A.A	50	2
Chlorine (p.p.m.)	IP PM –AK/81	3000	500
Nickel (p.p.m.)	A.A	100	5
Flash Point (° C)	IP 34 (PMCC)	NL	80
Asphaltenes (% w/w)	IP 143	NL	1
Gross Calorific (Btu/lb)	(ESTIMATE)	NL	20,000
Gross Calorific (MJ/kg)	(ESTIMATE)	NL	44

Note: this product is only suitable for use as a fuel.

Do not store or mix with substances that may be used for food applications.

Enva Ireland Ltd
Clonminam Industrial Estate, Portlaoise, Co. Laois

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a DCC company

SGS SGS

DP007 Oil Interceptor Management

Scope: This procedure defines specific conditions relating to the management of oil interceptors onsite.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Oil interceptors shall be properly maintained to prevent discharge of oil to surface water, groundwater, land or sewer. The outflow from the interceptor should be checked weekly for any signs of contamination. All interceptors shall be inspected in accordance with the manufacturer's instructions or every six months as a minimum. Inspections of the interceptor shall be carried out to ensure:

- correct operation and functioning of the interceptor;
- acceptable depth of accumulated oils and silts;
- no signs of leaking or physical damage to the interceptor;
- correct functioning of mechanical parts and warning devices where fitted.

A record of the inspection should be kept and any faults or damage should be reported and corrective action taken.

The interceptor should be periodically cleaned by a specialist contractor to remove accumulated oils and silts and the material should be disposed of according to the requirements set out in depot procedure DP003. The interceptor should be refilled with clean water after it has been emptied.

3. Monitoring and Reporting

The interceptor cleaning shall be monitored and recorded on the Waste Management Record Sheet as per depot procedure DP003.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP008 Water Management

Scope: This procedure defines the conditions relating to management, monitoring and control of surface water discharges, trade effluent discharges and groundwater dewatering and management for the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

A current and accurate site drawing showing all surface water drainage and discharge points shall be held on site and should clearly differentiate between surface and foul water drainage. A map showing all groundwater monitoring locations shall be maintained at the site. All water usage at the site shall be monitored and recorded. Any significant changes in water usage shall be investigated and the findings documented.

All discharge points shall be visually inspected daily unless otherwise specified in any regulatory requirement. A sampling regime that is in line with the requirements of the discharge licence and the site's pollution risks shall be established. This shall include testing of samples where appropriate. Where any visual pollution is detected in the discharge, a sample shall be taken immediately and tested.

Water with high suspended solids shall be prevented from entering watercourses and surface water drains by proper onsite management of surface water and by using silt traps, interceptors and settlement systems where appropriate. Settlement systems shall be carefully managed to ensure effective settlement capacity by desilting or rotation.

Effective controls to prevent contamination of groundwater resources and an effective monitoring programme to monitor groundwater quality and supply shall be put in place. The main controls planned for the protection of groundwater resources at the site and in the area include:

- Measures shall be taken to minimise water demand where appropriate;
- Wheel washing water travels into the underground interceptor for treatment prior to discharge into storm drain. Sampling is carried out at this discharge point;
- The drainage arrangements proposed for the site shall ensure that no uncontrolled discharge of drainage from the site occurs at any time, and hence no infiltration to groundwater;
- Storage of wastes, fuels and hazardous materials shall be in designated bunded storage areas to prevent any risk of contamination of groundwater.

In instances when an actual or suspected uncontrolled release of pollutants occurs to a watercourse or groundwater, site management shall inform the Regional Manager immediately and the emergency response procedures as per depot procedure DP004 shall be implemented.

3. Monitoring and Reporting

Environmental monitoring reports will be prepared by external consultants and shall contain all information as required by the various conditions set out in the permissions. A hardcopy report with the results assessed against the permit limits will be issued to the permitting authority and also to the site. A soft-copy will be issue to the Lagan Materials Ltd. head office.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP009 Ecological Management

Scope: This procedure defines the conditions relating to the management of the site in terms of its impact on ecology.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Lagan Materials Ltd. operate to ensure that the activities carried out on site will not cause adverse impacts on the terrestrial or aquatic habitat of the area. The main potential impacts relate to the impacts of discharges to surface water. These impacts are managed, monitored and controlled as outlined in depot procedure DP008.

To ensure that due care is taken to prevent damage to wildlife and to enhance biodiversity where possible the company carries out appropriate risk assessments where necessary by:

- identifying the valuable ecology at the site;
- assessing potential threats or impacts to the ecology;
- identifying ways of avoiding or minimising impacts.

Where significant impacts have been identified, an ecological survey shall be carried out. Where the wildlife is protected under legislation stringent controls shall be followed.

To ensure that site ecology and biodiversity is preserved and enhanced the following actions shall be taken at the site:

- native vegetation and natural habitats shall be retained where practicable;
- unnecessary site clearance shall be avoided;
- unnecessary disturbance to vegetation and soil shall be avoided;
- areas that cannot be disturbed shall be clearly cordoned off;
- ensure that any protected species such as bats, badgers or sand martins are adequately monitored and stand offs maintained;
- invasive weeds and plants such as Giant Hogweed, Japanese knotweed, Ragwort and Himalayan Balsam shall be controlled effectively.

3. Monitoring and Reporting

Where required environmental monitoring reports on ecological findings at the site will be prepared by external consultants and shall contain all information as required by the various conditions set out in the permissions or as requested by the relevant authority. A hardcopy report will be issued to the permitting authority and also to the site. A soft-copy will be issue to the Lagan Materials Ltd. head office.

DP010 Noise and Vibration Management

Scope: This procedure defines the conditions relating to management, monitoring and control of noise and vibration impacts at the site. The Procedure sets out the operating instructions to be issued to Contractors and employees to minimise noise and vibration impacts associated with the development.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

Noise levels at noise sensitive locations in the vicinity of the site shall be strictly controlled in accordance with the requirements of the conditions imposed by the permits for the site. Lagan Materials Ltd. operate to ensure that noise levels associated with the development do not cause adverse impacts at noise sensitive locations. Practical instructions in accordance with the guidance in *BS5228: Noise Control on Construction and Open Sites* are issued to all contractors and employees and include the following:

- Working hours shall be strictly confined to the hours stated in the sites permissions;
- There shall be no works on Sundays or Bank Holidays;
- The lowest possible noise level reverse warning alarms consistent with site safety shall be utilised;
- Compressors and pumps shall be enclosed and insulated where possible when in use;
- Muffling devices shall be fitted to ensure that effective noise control is achieved;
- Unnecessary revving of engines shall be avoided;
- Equipment shall be switched off when not in use;
- Plant and vehicles shall be properly maintained and, in particular, the effectiveness of silencers and lubrication of bearings and moving parts shall be carefully monitored; cutting edges of relevant equipment shall be kept sharp;
- For directional noise sources e.g. reversing trucks, the noise source shall be pointed away from the nearest noise sensitive receptors wherever possible;
- Internal haul roads shall be effectively maintained and constructed in such a way as to minimise gradients;
- Acoustic enclosures for pumps and generators and similar plant shall be used to minimise noise levels associated with their operation where possible;
- Drop heights for materials shall be minimised;
- Plant and vehicles shall be started sequentially rather than all at once;
- When working in close proximity to noise sensitive receptors the works programme shall be carefully controlled so that noisy activities are planned in such a way that they do not all occur simultaneously.

3. Monitoring and Reporting

Monitoring results shall be used to demonstrate compliance with the requirements imposed by the permit conditions and monitoring results shall be kept at the site and made available for inspection at all reasonable times. A hardcopy report with the results assessed against the permit limits will be issued to the permitting authority and also to the site. A soft-copy will be issue to the Lagan Materials Ltd. head office.

4. Corrective Actions

If a monitoring result is out of compliance, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP011 Landscape and Visual Impact

Scope: This procedure defines the measures to be taken on site to ensure protection of the landscape and visual amenity of the area surrounding the site as quoted in the sites permissions.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

The detailed landscaping plan for the site is available upon request. The landscaping plan shall be implemented as follows:

- Seeding and planting of screening bunds;
- Progressive restoration with replanting where appropriate;
- Growth will be encouraged on all medium to long term earth storage areas, with the aim of "greening up" any bare earth, thus blending it with the surroundings;
- Any new earthworks will be shaped to avoid "engineered" slopes which have a tendency to appear artificial and therefore out of place;
- Tree and shrub planting will be encouraged to support and strengthen existing hedgerow habitats;
- Earth ripping will be undertaken in compacted areas once access is no longer required, and clearance of potentially detriment waste identified;
- Earthworks and stored overburden will be kept to a reasonable height avoiding any breaking the horizon line from key visual receptors;
- Ecological management of the site will be carried out in accordance with depot procedure DP009.

3. Monitoring and Reporting

A summary report shall be prepared and an Annual Report shall be compiled for inclusion in the Annual Compliance Report. This report will be available for consultation at the Site Office on request.

DP012 Traffic Management

Scope: This procedure defines the measures to be taken to protect the amenities of the area and traffic safety as quoted in the Permissions for the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

The mitigation measures for minimising the impact of increased traffic on the local road infrastructure are summarised as follows:

- In general, acceptance of deliveries shall only take place outside the AM and PM peak travel periods whenever possible;
- Traffic entering and leaving the site shall comply with any directions given by site management regarding the route to and from the site and also while on the site;
- Traffic entering and leaving the site shall comply with the speed limits in place on the public road and on the site;
- Upon arrival at the site all drivers shall report to reception before proceeding into the site;
- Site reception shall check the delivery to the site ensuring the correct materials are being transported in the proper manner;
- Site reception shall check that the Driver Authorisation Licence is valid for any new persons delivering to the site;
- Site reception shall check all deliveries leaving the site ensuring the correct materials are being transported in the proper manner;

3. Monitoring and Reporting

There is no monitoring or reporting requirement associated specifically with this procedure.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

If drivers are found to, or are reported to, have followed an incorrect route, a verbal warning may be issued. If two verbal warnings are issued, a written warning will be issued for the next offence and disciplinary proceedings will be initiated.

DP013 Archaeological Impact Management

Scope: This procedure defines specific conditions relating to archaeology preservation and protection of archaeological materials devised for the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

The mitigation measures relating to archaeology preservation and protection of archaeological materials for the site are summarised as follows:

- If any virgin ground development is proposed for the existing site, a full archaeological assessment will be required before the work commences;
- Pre-development assessment shall include a geophysical survey and/or the excavation of test trenches carried out by a licensed archaeologist prior to the commencement of any groundworks;
- Any topsoil stripping within the site and any other site clearance or earthmoving works shall be monitored by a qualified archaeologist if required by the relevant authorities.

3. Monitoring and Reporting

A summary report shall be prepared for any archaeological works completed at the site and shall be compiled for inclusion in the Annual Environmental Report. This report will be available for consultation at the Site Office on request.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP014 End-of-Life Plant Management

Scope: This procedure defines specific conditions relating to the management of plant and equipment that is no longer in use at the site and has become redundant and will no longer be used at the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

In order to ensure that end-of-life plant and equipment is managed so that the item is either re-used elsewhere, recycled or disposed of before any pollution or contamination occurs the following actions shall be undertaken:

- Identify any plant and equipment that is stored on site but is no longer required for use;
- Determine if the plant and equipment is still useful and could be deployed at another Lagan site or sold;
- Check if the plant and equipment contain oils, lubricants, fuels or other potential contaminants which could result in pollution if the equipment is not properly managed;
- Drain plant and equipment of any potential contaminants to reduce potential for spillage if it is safe to do so;
- All plant and equipment disposed of as scrap metal should be drained of potential contaminants and these should be disposed of in accordance with depot procedure DP003;
- Ensure that end-of-life plant and equipment is securely stored with no potential to result in environmental pollution.

3. Monitoring and Reporting

Details of all wastes generated for recovery or disposal on or off the site shall be recorded in accordance with depot procedure DP003.

A summary of all waste statistics shall be prepared and an Annual Report shall be compiled for inclusion in the Annual Environmental Report for the site. This report will be available for consultation at the Site Office on request.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP015 Site Security

Scope: This procedure defines specific conditions relating to the site security and the prevention of intruders accessing the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

In order to ensure that reasonable precautions are taken to prevent intruders from accessing the Lagan Materials Ltd. site resulting in damage to themselves or Lagan property the following actions shall be undertaken:

- A secure boundary fence shall be erected along all areas readily accessible by the public to prevent access to the site. A screening bank or boundary wall shall be erected along other areas which are not accessible from public roads etc;
- A lockable entrance gate shall be erected at the site entrance for all public access points into the site;
- Regular inspections of the security fence shall be carried out to identify and potential weaknesses;
- Buildings and offices shall be secured and locked before daily lock-up at the site;
- All access gates shall be locked by the last person leaving the site on a daily basis;
- All alarms shall be set by the last person leaving the site on a daily basis;
- Security lighting shall be activated if available;
- All plant and machinery shall be locked and/or stored away when not in use;
- All tools, materials and other sundry items shall be stored in locked containers or sheds when not in use and at the end of each working day;
- All volatile and/or polluting materials such as fuel, oils, paints etc shall be securely stored and not visible from the site boundaries accessible by the public.

3. Monitoring and Reporting

Any break-ins, thefts of damaged caused by intruders at the site shall be reported to the Gardai and to senior management immediately upon discovery.

4. Corrective Actions

If a break-in at the site occurs, an immediate review will be undertaken to identify the cause and source of the break-in. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP016 Contractor Management

Scope: This procedure defines specific conditions relating to the management of any contractors that enter the site to carry out works of any nature on the site.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

In order to ensure that the onsite activities of any contractor that carries out any works on the site are managed accordingly the following actions shall be undertaken:

- All Contractors that carry out any works on the site shall complete the Environmental Training for Contractors and sign the Approval for Completed Training before commencing any works onsite;
- All Contractors that carry out any works on the site shall be inducted on the environmental, health and safety (EHS) rules for contractors and be made aware of the sites Environmental Policy and the various environmental control measures that are in place on the site that may be relevant;
- All contractors shall identify how their activities could impact on the environment and detail their works to be undertaken and the associated precautions to be taken before permission for work is granted;
- The contractor must advise Lagan Materials Ltd. of any sub-contractors they are planning to use and ensure that the sub-contractor complies with the above requirements;
- The contractor shall notify Lagan Materials Ltd. of any hazardous substances they will be using on site and how these will be controlled;
- A point of contact for the contractor shall be established with Lagan Materials Ltd. site management prior to the commencement of any works on site;
- All contractors shall ensure that all plant and equipment brought onto site is fit for purpose and meets the relevant legislative standards;
- Contractors shall sign in and out at reception each time they enter and leave the site.

3. Monitoring and Reporting

The contractors work should be checked daily by site management to ensure they are working in accordance with the requirements of this procedure. The work should be assessed to ensure that the contractor is competent to complete the works without adverse risk to environmental and health and safety standards.

4. Corrective Actions

If the required standards are not being achieved by the contractor, their works shall be stopped and a review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP017 Communications, Incidents and Complaints

Scope: This procedure describes the processes which will be followed to deal with all communications received from and issued to the public with particular concern to any environmental matter raised by members of the local community. It also deals with the procedures to follow for any communication to and from the permitting authorities.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

2.1 Company Communication

Internal management communication on environmental issues shall be carried out via Environmental Management Review Meetings, informal meetings, and monthly senior management board meetings. Environmental review meetings are held quarterly. The agenda includes a review of the following:

- Environmental monitoring reports;
- Corrective action reports;
- Environmental audits;
- Environmental system effectiveness;
- Environmental policy, objectives, targets and programme;
- Emergency preparedness and response.

A Community Liaison Officer shall be available on site at all times and shall be appointed to ensure that the local community are kept updated on developments. Inquiries by the public either verbal or written shall be directed to the Community Liaison Officer. The following information shall be available to the public on request:

- Environmental Policy;
- Environmental Objectives, Targets and Programme;
- Monitoring Reports;
- Complaints Log, Complaint Investigation Reports and Follow up;
- Waste Disposal Log;
- Non-compliance reports and associated Corrective Action Reports.

All managers are responsible for promoting environmental awareness amongst their employees, which includes keeping relevant personnel informed of environmental performance and related issues. The Company shall also use notice boards, update meetings, memo, email, phone etc. to keep employees informed of relevant environmental issues. A record of Environmental Training is kept at the site. This record must be signed and dated by both trainer and trainee at time of training and the area of training that has taken place must be indicated on the record form. All records shall be stored on file at the site office.

2.2 Recording of Environmental Communications

Environmental communications between interested parties shall be recorded at all sites. All incoming and out-going mail shall be recorded by the site manager or alternatively a nominated representative and a log of these records shall be kept on file at the site and made available for inspection. Details of date received/sent, sender, subject matter and action taken shall be recorded on the log.

2.3 Incidents

The Procedure for the reporting of Incidents is documented in Depot Procedure DP004. This procedure shall be followed for the notification of any incidents at the site.

2.4 Complaints

Lagan Materials Ltd. has an Environmental Policy that includes a commitment to deal with concerns and queries of interested parties on environmental issues and to meet and exceed where possible the requirements of the interested parties. To ensure that the Company is complying with its Environmental Policy and Targets, records shall be kept to document any environmental concerns raised by members of the local community. The Company must investigate, take samples as appropriate and provide feedback by way of corrective actions and communication with the interested party and also notify the licensing authority of the complaint and subsequent actions taken.

Environmental complaints are to be directed to the Site Manager who is responsible for recording complaint details and carrying out the necessary investigations and corrective actions. All complaints will be recorded on the Environmental Complaints Register. Details of the management and follow up are recorded on the Environmental Complaint Investigation Form. Details to be recorded includes the date reported, complaint details, person responsible for dealing with the complaint, complainant's description of the problem, site notes and the action which has to be carried out. A Corrective and Preventive Action form may be raised where non-compliances are identified following a complaint.

3. Monitoring and Reporting

The monitoring and reporting should be carried out for all training, incidents and complaints of an environmental nature as described in the procedure above.

4. Corrective Actions

If a non-compliance with an Objective or Target is noted, an immediate review will be undertaken to identify the cause of the non-compliance. The details of the investigation together with details of corrective actions to be taken will be recorded in accordance with the Corrective Action Depot Procedure.

DP018 Corrective and Preventive Actions

Scope: Specific corrective actions for environmental issues are documented in this procedure and shall be used by the Company to deal with non-compliances which may arise when targets and objectives are not being met.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

It is Company policy to deal with all environmental non-conformances as soon as possible. A series of checks and audits throughout the process are designed to check for non-conformances. Corrective and preventative action shall be initiated immediately. Any changes in procedures resulting from these actions shall be implemented and recorded.

When any non-compliance is identified the Employee or Contractor must complete the Corrective and Preventative Action form according to the following steps:

- Enter the Corrective and Preventative Action (CPA) reference number use the format, CPA # - yr e.g. CPA 01-2018 for the first corrective and preventative action in the year 2017, numbering sequentially;
- Enter the type of non-conformance e.g. noise, dust, vibration, surface water, water supply, other air emissions or traffic nuisance;
- Identify how the non-conformance was found;
- Record the name of the person who found the non-conformance and issued the form;
- Record the details of the non-conformance i.e. which policy, objective or target is not being met and what is causing the non-conformance;
- Recommend the corrective and/or preventative action required. Take action immediately where the delegated authority exists in the Company's structure; or forward the recommendation to the appropriate person for approval of actions. Record the date and who the form was sent to for action;
- Record the corrective and preventative actions taken, the date and the initials of the person who took the action;
- Enter any follow up requirements and a date for reassessment to check future compliance;
- Report the non-compliance and action to the Technical Manager and forward the record to the Technical Manager for final check and sign off that the required actions have been taken to ensure ongoing compliance.

It is the responsibility of the Technical Manager to ensure that the necessary Corrective Action is implemented. Records of all Corrective Actions shall be kept in file at the site.

3. Monitoring and Reporting

A summary report will be prepared for inclusion in the Annual Environmental Report for the site.

DP019 Site Inspection Checklists

Scope: This procedure defines the requirement for site inspections to ensure that Lagan Materials Ltd. is complying with its regulatory requirements and Environmental Policy and Targets.

1. Relevant Permits, Licences, Authorisations & Conditions

A copy of all Permits, Licences and Authorisations must be held on site and available for inspection by the relevant Authorities at all times.

2. Management and Control

The Technical Manager has overall responsibility for ensuring compliance with this procedure and the co-operation of all personnel is essential to its effectiveness. The Depot Manager is responsible for ensuring day-to-day compliance with the procedure.

Daily and weekly site inspections shall be undertaken by on-site staff to check on the environmental performance. The daily inspection form and the weekly inspection forms shall be used to carry out the inspection and its recording. Where the site inspection reveals any non-compliance with the Company's Environmental Policy, Objectives or Targets the Employee or Contractor must raise a Corrective and/or Preventative Action according to Procedure DP018. The Corrective Preventative Action (CAP) reference number must be recorded on the daily and weekly inspection forms as appropriate.

3. Monitoring and Reporting

Records of daily and weekly site inspections undertaken shall be recorded on the assigned forms and these shall be filed on site and shall be made available to the permitting authorities on request. Alternatively, provision is made to document daily and weekly site inspections electronically on the "Effective Software" on a Tablet Device and these records shall be filed centrally on the company Server. These files shall be made available to the permitting authorities on request. Site inspections undertaken and corrective actions issued or taken shall be reported to the Technical Manager on a monthly basis.

A summary of the Inspection Findings shall be prepared annually and included in the Annual Compliance Report.

DP020 Accident Prevention Policy

Scope: The purpose of this Accident Prevention Policy (APP) is to set out the policies of the Company in respect of Accident Prevention at the Lagan Materials Ltd. site. The objective of this APP is to outline the protection provided for man and the environment by appropriate means, structures and management systems. The key features of this objective are:

- No major accidents;
- No "near miss" incident capable of leading to a major accident;
- No requirement to evacuate persons from areas on the site;
- No injury to neighbours or employees or damage to environment as a result of accidental emissions.

The APP contains objectives set out under the following headings which are required to be addressed by the Safety Management System for the site.

1. Management and Control

1.1 Organisation Personnel and Training

The company (Lagan Materials Ltd.) will ensure that;

- The organisational structure is appropriate to minimise the risk of a major accident, and to minimise the consequences should one occur;
- All staff are made aware of the potential for major accidents and are trained, where relevant, in procedures needed to ensure that policy objectives are met;
- All contractors' staff are made aware of the potential for major accidents and are trained, where relevant, in procedures needed to ensure that policy objectives are met;
- All employees are aware of their responsibilities in the management of major accidents and are selected and trained to ensure that they have the necessary skills and experience to perform their duties;
- All the Company's employees have access to safety information and to data on Material Safety Data Sheets. All employees working directly with chemicals receive Chemical Safety Training upon induction. All employees are issued with a copy of the Company Safety Statement upon induction;
- Feedback from employees is encouraged on major accident issues in the course of training, risk assessment review and Health & Safety and Environmental audits. Employees are also encouraged to make suggestions and raise specific major accident concerns, which they may identify during operational activities;
- The necessary resources are made available for training of management and employees in the prevention of accidents, including major accidents;
- Systems are in place to co-ordinate the Health & Safety and Environmental Management System and ensure its effectiveness.

1.2 Identification and Evaluation of Hazards

The company (Lagan Materials Ltd.) will ensure that:

- The levels of risk are reduced to 'as low as reasonably practicable';
- Major hazards arising from normal and abnormal operations are identified and their likelihood and severity assessed;
- The identification and evaluation of hazards covers all phases of operations including manufacturing, storage, product transfer, waste disposal and control of emissions to the environment;
- Hazard Identification extends to evaluating potential risk to the site posed by events originating outside the site including risks from abnormal meteorological conditions such as flooding and power failure;
- All recommendations made as a result of the hazard identification process are implemented.

1.3 Operational Control

The company (Lagan Materials Ltd.) will ensure that:

- The risk of incidents with the potential for accidental damage to people or the environment is minimised by exercising control over all aspects of the company's operations;
- Operating Procedures are written and implemented for all phases of site operations;
- Operating Procedures are reviewed on a regular basis and amended when and where necessary.

1.4 Planning for Emergencies

The company (Lagan Materials Ltd.) will ensure that:

- Operations are carried out in a manner, which serves to protect the community and the company employees from injury or illness and which avoids damage to the environment;
- An on-site emergency plan is prepared and maintained, which details the required response of the company personnel in the event of a major accident;
- The emergency plan includes arrangements for contacting the emergency services. The emergency services will in turn contact those people in the surrounding environment that might be affected;
- The relevant personnel are trained in their emergency response duties under the on-site plan, together with first aid and fire-fighting training;
- The emergency plan / emergency evacuation plan is tested periodically and reviewed to ensure their continued effectiveness;
- The company co-operates fully with the local Fire Authority and other emergency services for emergency planning.

2. Monitoring and Reporting

2.1 Monitoring Performance

The company (Lagan Materials Ltd.) will ensure that:

- Systems are developed, implemented and maintained which actively monitor adherence to all safety procedures adopted in order to minimise the risk from major accident hazards. Active monitoring includes inspections and preventative maintenance of safety critical plant, equipment and instrumentation as well as checking compliance with training, instructions and safe working practices;
- All accidents and incidents are systematically reported and investigated by the Company's investigation team. Investigations examine both the immediate cause of an incident and any underlying causes. All accidents and incidents are discussed at Safety Committee Meetings;
- Corrective and preventative actions determined by such investigations are recorded in the Standard Operating Procedure DP018 and implemented accordingly.

2.2 Audit and Review

The company (Lagan Materials Ltd.) will ensure that:

- The Health & Safety and Environmental Management System is systematically reviewed for effectiveness and suitability;
- Regular internal audits are conducted;
- Procedures are developed, adopted and maintained to audit the achievement all Health & Safety and Environmental objectives;
- All relevant procedures are reviewed following all accidents or incidents with the potential to escalate into a major accident;
- The APP is reviewed regularly and also in the event of any modification to the site which could have significant impact on major accident hazards.

LAGAN MATERIALS LTD.

AUGHAMORE, CO SLIGO

ISO 14001: 2015

3. Current Planning Permits, Registrations, Licences and Authorisations

Current Planning Permits, Registrations, Licences and Authorisations

The list of current Planning Permits, Registrations, Licences and Authorisations for the Aughamore Depot is presented in Table 1. All permissions are appended to this section.

Table 1 Planning Permits, Registrations, Licences and Authorisations

Permission	Copy Held on File	Status
Planning Permission Planning Reg. No. PL 02/271	Yes	Active
Updated Planning Permission Planning Reg. No. PL 02/271 by Order No. P 146/13	Yes	Active
Trade Effluent Discharge Licence Reg. Ref. No. DL(W)151	Yes	Active

The list of environmental monitoring currently completed at the Aughamore site to comply with the requirements of the current Planning Permits, Registrations, Licences and Authorisations for the Aughamore Depot is presented in Table 2. The environmental monitoring location maps are appended to this section.

Table 2 Environmental Monitoring Details for the Aughamore site

Parameter	Frequency	Monitoring Locations ID	Monitoring Location Map
Surface Water	Monthly	Discharge, Upstream, Downstream	Yes
Surface Water Flow Rate	Monthly	Discharge Pipe	Yes
Dust	Quarterly	D1, D2, D3, D4	Yes
Noise	Annually	N1, N2, N3	Yes

A hardcopy version of all environmental monitoring reports is held on file at the Aughamore site for a minimum period of seven years. These reports are contained in the EMP for the site in the folder(s) entitled Environmental Monitoring Reports.

Aughamore Surface Water Monitoring Location: Discharge, Upstream, Downstream

Aughamore Surface Water Flow Monitoring Location: Discharge Pipe

SLIGO COUNTY COUNCIL

PLANNING AND DEVELOPMENT ACT 2000
DECISION

TO: *Maye Concrete Ltd.,*
Gavin Lawlor, Tom Philips & Associates,
Hainault House,
69-71 Street,
Stephen's Green,
Dublin 2.

Phillipe Joyce.

Planning Register Number: *PL 02/271*

Application Received: *25/04/2002*

Further Information Received Date: *19/03/2003*

Notice is hereby given that Sligo County Council by Order dated *12/05/2003* decided: to GRANT *PERMISSION* to the above named, for development of land, in accordance with the documents lodged namely: *deepening of an existing quarry by 30 metres from its base approved under planning register reference PL 96/172 in two 15 metre lifts over an area of 10.9 hectares and all other associated works including restoration works to the final quarry void on an overall site area of 18.8 hectares* at *Aghamore Near & Carrownamaddoo, Co. Sligo.* subject to the 23 condition(s) set out in the attached Schedule.

Signed on behalf of Sligo County Council.

M. Casey

Date: 12/05/2003

pp G Browne,
ADMINISTRATIVE OFFICER.

This NOTICE is not a grant of permission or approval and work should not be commenced until planning permission is issued. Provided there is no appeal against this DECISION, a grant of PERMISSION will issue at the end of four weeks. 9/6/3.

Any appeal against a decision of a Planning Authority must be made to An Bord Pleanala, 64 Marlborough Street, Dublin 1 and must be received by the Bord within four weeks beginning on the date of the making of the decision by the Planning Authority. An appeal by the applicant should be accompanied by this form. An appeal by any other person should state the applicant's name and address, name of the Planning Authority and the Planning Register number. An appeal shall (a) be made in writing, (b) state the name and address of the appellant (c) state the subject matter of the appeal (d) must state in full the grounds of the appeal and the reasons, considerations and arguments on which they are based and (e) be accompanied by the correct fee. The appeal fee is 150; except in the case of an appeal by the applicant relating to commercial development where the fee is 380. Fee for making submissions or observations is 45, and for a request for an oral hearing 75. The appeal must be fully complete from the start. It is not permitted to submit any part of it later on, even within the time limit.

24/6/3. Copy DW.

P531 /03
PL 02/271

Schedule of Conditions

1. The development shall be carried out in accordance with the plans and particulars as amended and received by the Planning Authority on the 25th day of April 2002, 26th of September 2002 and the 19th day of March 2003, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of clarity

2. The period during which the development permitted by this order may be carried out shall be 10 years from the date of this order.

Reason: In the interest of orderly development.

3. Prior to commencement of development proposals for a system of Public notification of blasting procedures to be carried out in accordance with the proposed development shall be submitted for the written agreement of the Planning Authority.

Reason: In the interests of residential amenity.

4 Final restoration of the quarry shall be carried out in accordance with the drawings and details submitted to the Planning Authority on 25th April 2002. Not less than 6 months prior to cessation of the operation of the quarry a detailed restoration scheme shall be submitted for the written agreement of the Planning Authority The scheme shall include precise proposals of the following –

(a) time scale for phased implementation.
(b) All species of tree planting, shrubs etc.
(c) Details of proposed uses and availability of access to the site.

Reason: In the interest of orderly development and the protection of the rural amenities of the area.

5 Within 6 months of cessation of the operation of the quarry, all structures, machinery and facilities associated with the quarry shall be decommissioned and removed from the site.

Reason: In the interest of the amenities of the area.

6 Before development commences, the developer shall deposit with Sligo County Council a cash deposit in the sum of €50,000, or a Bond of an Insurance Company of €50,000 in a form acceptable to Sligo County Council, or other security in a form

to secure the provision and satisfactory completion and maintenance of all communal site services to include interalia access roads, footpaths, sewers, watermains, drains, public lighting, landscaping and other services together with an agreement authorising Sligo County Council to apply such security or part thereof, as may be required by Sligo County Council for the satisfactory completion or maintenance as aforesaid of any part of the development or the reinstatement of any work, which in the opinion of the Council is unsatisfactory. The cash deposit or Insurance Company Bond or other security may, prior to commencement of development, and subject to the written agreement of Sligo County Council be apportioned on a phased basis.

Reason: To ensure the provision and satisfactory completion of the development and ancillary works in the interests of traffic safety and residential amenity.

7. The developer shall pay a sum of €5000 to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the planning authority in respect of compliance monitoring facilitating the proposed development.

Reason: It is considered reasonable that the developer should contribute towards the expenditure that was and/or that is proposed to be incurred by the planning authority in respect of works facilitating the proposed development.

8. It is a condition of the permission to be granted that the applicant at the date of application was (or has the approval of the person who was) able to assert sufficient legal estate or interest in the land the subject matter of the application to enable the applicant to carry out and access the proposed development for which permission is to be granted.

Reason: To ensure that the grant of permission is based on a valid application.

9(a) The adjoining county road CR 298 shall be upgraded in accordance with materials and specifications submitted to the Planning Authority on 22nd April 2003. The stretch of road to be upgraded however shall be from a point 120 metres south-west of the existing entrance to the subject site to the junction of the CR 298 and Regional Road R 284. R287?

(b) Road widening and upgrading either side of the proposed entrance shall be carried out in accordance with revised access layout proposals submitted to the Planning Authority on 19th March 2003.

(c) The road widening and upgrading works shall be carried out within 12 months of commencement of any development granted on foot of this permission and shall be finished to an acceptable standard to be agreed in writing with the Planning Authority.

Reason: In the interests of traffic safety and orderly development.

10 No groundworks for construction or landscaping shall take place within 20m of the external perimeter of monument no SL: 020-093. If planting is to take place within this buffer, only plants with shallow root systems shall be chosen. The site boundary shall be made of post and rail fencing

Reason: In the interests of protecting the archaeological amenity of the area.

11 The area between the new front boundary wall and the edge of the public road shall be cleared, soled in road making material, graded, levelled and surfaced to a standard suitable for use as off-street parking, and to the satisfaction of the Planning Authority. The finished level of the area soled in road making material shall be a minimum of 200mm below the existing road centre line level.

Reason: To allow for road improvements and orderly development and in the interests of road safety.

12(a). Proper provision shall be made to ensure that no surface water is diverted or allowed to flow onto the adjoining public road.

(b). Provision shall be made for the interception and disposal of surface water that may flow off the public road onto site, as a result of this development.

(c). The existing road drainage system shall not be obstructed by the development.

Reason: In the interests of road safety and to prevent damage to the public road.

13. The existing stream/ditch at front of site shall be piped with concrete pipe of adequate size to allow free flow of surface water. The pipe beneath the new entrance shall be constructed in reinforced concrete pipe Class 'L' or 'M'.

Reason: To ensure adequate drainage arrangements are made.

14(a) All existing trees referred to in Tree Survey submitted to the Planning Authority 26/9/02 to the north and south of the existing quarry access road shall be retained and protected from damage during operations of the quarry.

(b) No quarrying operations or associated work shall be carried out during the hours from 6.00 pm to 8.00 am Monday to Friday, or from 5.00 pm to 9.00 am Saturday and shall not take place on Sundays or Public Holidays.

(c) Blasting / drilling shall only be carried out during the hours from 10:00 am to 5:00 pm Monday to Friday and shall not take place on Saturdays, Sundays or public holidays.

Reason: In the interests of pollution prevention.

15 Flyrock prevention measures and fencing proposals shall be retained on site in accordance with details agreed under PL 00/63.

Reason; In the interests of visual amenity.

16(a) The septic tank, puraflo system and sand polishing filters shall be installed in accordance with the *Environmental Protection Agency Wastewater Treatment Manuals - Treatment Systems for Single Houses Manual (2000)* and submitted to the Planning Authority on 26 September 2002 and 19 March 2003.

(b) There shall be at least at least 1.2m depth of suitable material from the bottom of the lowest percolation pipe trench to the highest known water table or rock level, which ever is greater.

(c) An 3 year maintenance contract shall be entered into by the developer with the proprietary effluent treatment system supplier/installer. Maintenance shall be as recommended by the proprietary effluent treatment system supplier, but in any event shall be a minimum of once per annum.

(d) Monitoring results of effluent quality shall be submitted to the Planning Authority on an annual basis, on the anniversary of the initial commissioning of the system, and these results shall be certified by the Monitor (proprietary effluent treatment system supplier).

(e) A visible alarm shall be fitted on the proprietary effluent treatment system to alert the applicant of any system malfunction.

(f) A Certificate signed by a competent person relating to the completion of conditions above and their compliance with SR6 1991,and EPA guidelines shall be submitted to the Planning Authority following commissioning of the system.

Reason: In the interests of public health and to ensure the system is maintained and works effectively.

17 A separate surface water drainage system shall be provided for the proposed dwelling. Foul effluent only shall enter the foul treatment system.

Reason: To ensure satisfactory disposal of all surface water and in the interests of orderly development

18(a) Operation of the settlement lagoons for collection and treatment of all waters from the quarry floor and processing plant shall be as specified in submission to the Planning Authority on the 19 March 2003.

(b) Settlement lagoons shall be lined with a watertight HDPE liner, or re-enforced concrete to prevent seepage to groundwater.

(c) An adequately designed oil interceptor shall be installed on the outlet from the settlement lagoon, prior to discharge to the stream, this shall be maintained in accordance with the manufacturers instructions to prevent contamination of the stream with hydrocarbons.

(d) A flow proportional sampler and an automatic measuring device with a chart recorder which will record instantaneous rate of flow shall be installed and maintained on the effluent flow pipe. An integrated unit shall be provided and daily records of effluent flow shall be maintained. Flow charts and records shall be available for inspection at the offices of Sligo County Council.

(e) A continuous recording turbidity monitor shall be installed and maintained on the effluent discharge point from the settlement lagoons. An alarm attached to notify the plant supervisor when suspended solids levels are elevated. Tubidity records shall be made available to the Local Authority on request.

(f) Monthly samples of the effluent discharge shall be taken and analysed by an accredited laboratory, for BOD, Suspended Solids, Conductivity, Ammonia, Orthophosphate, Total Oxidised Nitrogen, Nitrite and Chloride. Results shall be available for inspection by the Local Authority and submitted to the Local Authority as part of the Applicants Annual Environmental Report.

(g) Safe and permanent access shall be provided at inspection points on all inflows and outflows to and from the settlement lagoons, this shall include access to the continuous flow and turbidity meter. In addition, a sampling chamber shall be provided for sampling the final effluent from the settlement lagoon prior to discharge to the Aughamore Stream.

(h) The company shall ensure that surface waters and groundwater's are adequately protected from contamination by polluting matter. No polluting matter shall enter drains or watercourses, except in accordance with an effluent discharge licence.

(i) All storm drains within the site boundary shall be maintained in a manner that allows visual inspection on a regular basis to ensure they are free from contamination.

(j) In the event of any spillage of polluting material on site, whether accidental or otherwise, the developer shall (a) carry out an immediate investigation to identify and isolate the source of the contamination (b) put all measures in place to prevent further contamination and (c) notify the Planning Authority immediately.

Reason: In the interests of pollution prevention.

19(a) During (dry) weather conditions which favour the dispersion of dust, the Applicant shall ensure that a procedure for the control of windblown dust and dust from the movement of trucks/machinery shall be operated and maintained.

(b) Dust suppression systems shall be used and maintained on all internal roads, aggregate transfer points, stockpile areas, conveyors and at the crushing plant. Collection systems for runoff water shall be provided with adequately designed settlement traps, to reduce the likely discharge of suspended solids to adjacent water courses. Details of the systems (i.e. dust suppression and run-off collection systems) shall be submitted to the Planning Authority for approval prior to their installation.

(c) The Applicant shall maintain and operate the dust deposit gauges around the site to the satisfaction of the Local Authority.

(d) A new dust deposition gauge shall be installed on the western boundary of the quarry, the location shall be agreed with the Local Authority prior to its installation. Additional dust deposition gauges may be requested by the Local Authority at other locations around the site if the Authority deem necessary.

(e) The dust gauges shall be operated in accordance with B.S.1747 Part 1 of 1969: Methods for the Measurement of Air Pollution: Deposit Gauges (or such method as may be agreed in advance in writing with the Local Authority).

(f) Dust deposition shall not exceed 130mg/m^2/day. Any excess of this shall be immediately notified to the Local Authority.

(g) Safe and permanent access shall be provided to each of the dust deposition monitoring sites.

(h) The results of monthly measurements from these gauges shall be retained on-site, for inspection by the Local Authority, for a period of 10 years after the measurements are made. A summary of these results shall be submitted to the Local Authority annually as part of the Annual Environmental Report.

Reason: In the interests of pollution prevention.

20(a) Activities on-site shall not give rise to noise levels off-site, at any noise sensitive location, which exceed the following limits: Daytime: 55 dB(A), Night-time: 45 dB(A). There shall be no clearly audible tonal component or impulsive component in the noise for this activity at any noise sensitive location.

(b) A noise survey of the site operations shall be carried out annually. The Applicant shall consult with the Local Authority on the timing, nature and extent of the survey and shall develop a survey programme to the satisfaction of the Local Authority. The survey programme shall be submitted to the Local Authority in writing at least one month before the survey is to be carried out. A record of the survey results shall be available for inspection by any authorised persons of the Local Authority, at all reasonable times and a summary report of this record shall be included as part of the AER (Annual Environmental Report).

(c) Where it is suspected that the development is the source of excessive noise at a noise sensitive location, or where circumstances have altered, the applicant shall undertake a noise monitoring survey if so directed by the Local Authority. The survey and monitoring sites used shall be agreed with the Planning Authority in advance. The results of the survey shall be submitted to the Planning Authority within one month of completion of the survey. If monitoring shows that the permitted sound level has been exceeded, the source of the offending noise shall be traced, the offending process shall be decommissioned immediately and measures to restore permitted levels shall be taken.

Reason: in the interests of noise prevention and residential amenity.

21(a) All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall as a minimum be bunded, to a volume not less than the greater of the following;

(i) 110% of the capacity of the largest tank or drum within the bunded area.

(ii) 25% of the total volume of substance which could be stored within the bunded area.

(b) All bunds shall be structured such that all fill points are within the bunded area, and any spillage at a fill point shall be contained within the bunded area.

(c) Drainage from all bunds shall be by means of a blind sump. Each sump shall be emptied by means of on electrically or manually operated pump via a suitably sized oil interceptor to drain. Pumps shall be operated from the bund itself by a trained operator, who must visually inspect the operation as it progresses to ensure excessive quantities of oil are not pumped out of the bund.

(d) Storm water from all filling and dispensing areas shall discharge to an adequately designed oil interceptor prior to discharge to storm water drainage.

(e) The integrity and water tightness of all the bunded structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the Applicant within six months of their construction. In addition, all bunds shall be tested at least once every 3 years and a report on such tests shall be included in the Annual Environmental Report.

(f) An adequate supply of containment booms and suitable absorbent material to contain and absorb any spillage shall be in storage.

(g) The company shall ensure that surface waters and groundwater's are adequately protected from contamination by hydrocarbon products.

Reason: in the interests of public safety and orderly development.

22 An Environmental Management Plan (EMP) shall be established and maintained. The Environmental Management Plan shall include the following:

(a) A schedule of Environmental Objectives and Targets for the quarry and processing area. This shall include the identification of all sources of threats to the environment within the site boundary, including air, noise, and water pollution and specify measures to prevent or reduce contamination from these sources. The schedule shall include time frames for the achievement of set targets. The schedule shall address a five year period as a minimum.

(b) Action plans for dealing with incidents which may require emergency attention.

(c) The designation of responsibility for targets:

(i) Not later than one year from the date of grant of this permission, an Environmental Management Plan, as outlined above shall be submitted for the written agreement of the Planning Authority.

(ii) The Environmental Managemetn Plan shall be reviewed annually and amendments thereto notified to the Local Authority for agreement as part of the Annual Environmental Report (AER).

(iii) A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Local Authority as part of the Annual Environmental Report (AER). Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Local Authority.

(d) An Annual Environmental Report shall be submitted to the Local Authority in March of each year, this shall include results of each of the following for the previous year, January to December:

i. Effluent Quality Results
ii. Results of discharge from Settlement Lagoo
iii. Dust Deposition Results,
iv. Noise Monitoring Survey.
v. Fuel Bund inspection reports
vi. Progress report – Environmental Management Plan

Reason: In the interests of orderly development

23 All complaints of an environmental nature shall be recorded related to the operation of the Quarry and processing plant. Each such record shall give details of the date and time of the complaint, the name of the complainant and give details of the nature of the complaint. A record shall also be kept of the

response made in the case of each complaint. A summary of the number and nature of complaints received shall be included in the Annual Environmental Report.

Reason: in the interests of orderly development.

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COMHAIRLE CHONTAE SHLIGIGH
ÁRAS AN CHONTAE COIS ABHAINN SLIGEACH

SLIGO COUNTY COUNCIL
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SLIGO COUNTY COUNCIL
PLANNING & DEVELOPMENT ACT 2000 (as amended)
SECTION 42

- 4 APR 2013

DECISION

TO: **Cemex (ROI) Ltd.**
c/o SLR Consulting Ireland
7 Dundrum Business Park
Windy Arbour
Dublin 14

Planning Register Number: **PL 02/271**

Date of original grant of permission: **17th June 2003**

Application to extend appropriate period received: **8th February 2013**

Notice is hereby given that Sligo County Council by **Order No. P 146/13** dated the **3rd April 2013** decided to **GRANT PERMISSION** to the above named to extend the appropriate period as regards planning permission **PL 02/271** which was granted on the 17th June 2003 **(Planning Permission granted for the deepening of an existing quarry by 30 metres from its base approved under planning register reference PL 96/172 in two 15 metre lifts over an area of 10.9 hectares and all other associated works including restoration works to the final quarry etc. at Aghamore Near & Carrownamaddoo, Co. Sligo)** for a period until the **14th September 2018** in accordance with the documents lodged, and subject to the same conditions as set out in the original grant of permission **(PL 02/271)** together with the conditions in the attached schedule.

The permission will therefore cease to have effect on the 14th September 2018. I attach herewith copy of conditions relating to the original grant of permission.

Signed on behalf of Sligo County Council

Kevin Colreavy
Administrative Officer
Planning Section

Date: **3rd April 2013**

sligo.ie

Ref: SW/EC/CQ

SCHEDULE OF CONDITIONS

1. Prior to the expiration of the existing bond under Condition Number 6 of PL 02/271 (i.e. prior to 26th August 2013), the developer shall deposit with Sligo County Council, a cash deposit in the sum of **€50,000 (Fifty Thousand Euro)** or a Bond of an Insurance Company of **€50,000**, or other security in a form acceptable to Sligo County Council to secure the provision and satisfactory completion and maintenance of all works and other services required in connection with the development, coupled with an agreement empowering the Planning Authority to apply such security or part thereof to the satisfactory completion or maintenance of any part of the development. The cash deposit or Insurance Company Bond or other security may, subject to the written agreement of Sligo County Council, be apportioned on a phased basis.

Reason: **To ensure that a ready sanction may be available to the Planning Authority to ensure the satisfactory completion of the development.**

Comhairle Chontae Shligigh
(SLIGO COUNTY COUNCIL)

Planning and Development Act 2000

NOTIFICATION OF GRANT OF PERMISSION

Maye Concrete Ltd.,
Gavin Lawlor, Tom Philips & Associates,
Hainault House,
69-71 Street,
Stephen's Green,
Dublin 2.

Planning Register Number: *PL 02/271*

Application Receipt Date: *25/04/2002*

Notice is hereby given that the Sligo County Council by Order dated *12/05/2003* GRANTED *PERMISSION* to the above-named, for development of land, in accordance with the documents lodged, namely:-

deepening of an existing quarry by 30 metres from its base approved under planning register reference PL 96/172 in two 15 metre lifts over an area of 10.9 hectares and all other associated works including restoration works to the final quarry etc. at Aghamore Near & Carrownamaddoo, Co. Sligo.

Subject to the **23** condition(s) set out in the Schedule attached.

Signed on behalf of SLIGO COUNTY COUNCIL

M Casey

pp G Browne
Administrative Officer,
PLANNING SECTION.

MC/MC

Date: *17/06/2003*

P531 /03
PL 02/271

Schedule of Conditions

1. The development shall be carried out in accordance with the plans and particulars as amended and received by the Planning Authority on the 25th day of April 2002, 26th of September 2002 and the 19th day of March 2003, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of clarity

2. The period during which the development permitted by this order may be carried out shall be 10 years from the date of this order.

Reason: In the interest of orderly development.

3. Prior to commencement of development proposals for a system of Public notification of blasting procedures to be carried out in accordance with the proposed development shall be submitted for the written agreement of the Planning Authority.

Reason: In the interests of residential amenity.

4 Final restoration of the quarry shall be carried out in accordance with the drawings and details submitted to the Planning Authority on 25th April 2002. Not less than 6 months prior to cessation of the operation of the quarry a detailed restoration scheme shall be submitted for the written agreement of the Planning Authority The scheme shall include precise proposals of the following –

(a) time scale for phased implementation.
(b) All species of tree planting, shrubs etc.
(c) Details of proposed uses and availability of access to the site.

Reason: In the interest of orderly development and the protection of the rural amenities of the area.

5 Within 6 months of cessation of the operation of the quarry, all structures, machinery and facilities associated with the quarry shall be decommissioned and removed from the site.

Reason: In the interest of the amenities of the area.

6 Before development commences, the developer shall r
with Sligo County Council a cash deposit in the sum
or a Bond of an Insurance Company of €50,000 ir
acceptable to Sligo County Council, or other secur

to secure the provision and satisfactory completion and maintenance of all communal site services to include interalia access roads, footpaths, sewers, watermains, drains, public lighting, landscaping and other services together with an agreement authorising Sligo County Council to apply such security or part thereof, as may be required by Sligo County Council for the satisfactory completion or maintenance as aforesaid of any part of the development or the reinstatement of any work, which in the opinion of the Council is unsatisfactory. The cash deposit or Insurance Company Bond or other security may, prior to commencement of development, and subject to the written agreement of Sligo County Council be apportioned on a phased basis.

Reason: To ensure the provision and satisfactory completion of the development and ancillary works in the interests of traffic safety and residential amenity.

7. The developer shall pay a sum of €5000 to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the planning authority in respect of compliance monitoring facilitating the proposed development.

Reason: It is considered reasonable that the developer should contribute towards the expenditure that was and/or that is proposed to be incurred by the planning authority in respect of works facilitating the proposed development.

8. It is a condition of the permission to be granted that the applicant at the date of application was (or has the approval of the person who was) able to assert sufficient legal estate or interest in the land the subject matter of the application to enable the applicant to carry out and access the proposed development for which permission is to be granted.

Reason: To ensure that the grant of permission s based on a valid application.

9(a) The adjoining county road CR 298 shall be upgraded in accordance with materials and specifications submitted to the Planning Authority on 22nd April 2003. The stretch of road to be upgraded however shall be from a point 120 metres south-west of the existing entrance to the subject site to the junction of the CR 298 and Regional Road R 284.

(b) Road widening and upgrading either side of the proposed entrance shall be carried out in accordance with revised access layout proposals submitted to the Planning Authority on 19th March 2003.

SLIGO COUNTY COUNCIL

Local Government (Water Pollution) Act 1977 as amended by the Local Government (Water Pollution) (Amendment) Act 1990

LICENCE TO DISCHARGE TRADE EFFLUENT OR SEWAGE EFFLUENT TO WATERS

LOCAL AUTHORITY: SLIGO COUNTY COUNCIL

TO: Lagan Bitumen Limited

Registered Office: Rosemount Business Park,
Ballycoolin Road, Dublin 11
D11 K2TP

Reference no: DL(W)151

Sligo County Council in exercise of the powers conferred on it by the Local Government (Water Pollution) Act, 1977, as amended by the Local Government (Water Pollution) (Amendment Act) 1990, hereby grants a revised trade effluent discharge licence, Ref. DL(W)151, to Lagan Bitumen Limited, to discharge trade effluent from Aghamore Quarry, to Aghamore Stream, County Sligo, subject to the following schedule of conditions:

SCHEDULE OF CONDITIONS

CONDITION 1: SCOPE

1.1 This licence refers to the discharge of trade effluent from Lagan Bitumen Limited's quarry facility at Aghamore Near, County Sligo, to surface water, via the settlement lagoon as indicated on the plans and proposals submitted to Sligo County Council. A settlement lagoon shall be provided on site in accordance with the design details, plans and proposals submitted to the Licensing Authority. The settlement lagoon shall be constructed in accordance with the Construction and Environmental Plan submitted to Sligo County Council. The settlement lagoon shall be installed and commissioned prior to the recommencement of quarrying activities on site.

1.2 Installation of the settlement lagoon shall be supervised by a competent technical professional with professional indemnity insurance. Certification of the structural integrity of the settlement lagoon, as provided by a competent technical professional with professional indemnity insurance, shall be submitted to the Planning Authority within two months of the date of completion of construction of the settlement lagoon.

1.3 The installation shall be controlled, operated, and maintained in accordance with the plans and proposals submitted to the Licensing Authority. The emission of trade effluent to Aghamore Stream shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence, become part of this licence.

1.4 No alteration in the activity or treatment process which would, or is likely to, result in a change in

- The nature or quantity of the final discharge,
- The treatment systems,
- The fuels, raw materials, products or wastes generated,
- Changes in the site management and control with adverse environmental significance,

shall be carried out or commenced without the prior written agreement of the licensing authority.

CONDITION 2: INTERPRETATION

2.1 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:

2.1.1 Continuous monitoring:
No flow value shall exceed the specified limit.

2.1.2 Composite Sampling
No pH value shall deviate from the specified range.
No temperature value shall exceed the limit value.
For parameters other than pH, temperature and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.

2.1.3 Discrete Sampling
For parameters other than pH and temperature, no grab sample shall exceed 1.2 times the emission limit value.

CONDITION 3: EMISSIONS TO WATERS

3.1 The maximum volume of trade effluent discharged from the site shall not exceed 3500m^3/day and the maximum volume of trade effluent discharged in any hour shall not exceed 146m^3.

3.2 The Licensee shall not discharge, or cause or permit to be discharged from the site any trade effluent whose characteristics exceed the emission limit values specified in Table 1 below. There shall be no other emissions of environmental significance.

TABLE 1: Trade Effluent Discharge Limit Values

Parameter	Discharge limit value	Units of measurement

Temperature	20	Degrees Centigrade
pH	6-9[Note 1]	pH Units
BOD	2	mg/l
Total Ammonia	0.1	mg N/l
Total Suspended Solids	25	mg/l
Molybdate Reactive Phosphorus (MRP)	0.05	mg P/l
Total Phosphorus (as P)	0.1	mg/l P
Sulphates	200	mg/l
Hydrocarbons	1	mg/l

Note 1: Exceedances outside the pH range of 6-9 are permitted for instrument calibration or maintenance, records to be kept of these exceedances.

3.3 No material change in the quality or quantity of the trade effluent being discharged shall be made without prior consent of the Licensing Authority.

3.4 The licensee shall not discharge, or cause or permit to be discharged from the site any effluent that will or is likely to result in the receiving water exceeding the limits set out in the European Communities Environmental Objectives (Surface Waters) Regulations, 2009, as amended.

CONDITION 4: MANAGEMENT OF THE SITE

4.1 All groundwater, floodwater and surface water arising from the operation of the quarry shall be directed/pumped to a settlement tank/cell/pond prior to discharge to surface waters.

4.2 The applicant/owner of the quarry shall implement an Environmental Monitoring Plan/Environmental Protection Plan for the quarry site. The plan shall be based on An Environmental Management System (E.M.S.) as detailed in the Environmental Protection Agency, Environmental Management Guidelines for Environmental Management in the Extractive Industry. The plan shall detail all measures that will be undertaken on site to prevent contamination of the environment and shall include an emergency action plan for dealing with pollution incidents. The Environmental Management System (EMS) as detailed in the Environmental Protection Agency, *Environmental Management Guidelines for Environmental Management in the Extractive Industry,* and as submitted to the licensing authority shall be fully implemented on site. The Environmental Management System shall be reviewed on an annual basis and submitted to the licensing authority on request.

4.3 Details in relation to the testing and certification of the new settlement lagoons, cells, pond and storm water channel to ensure they are watertight shall be submitted to the licensing authority for approval prior to use.

4.4 The Licensee shall nominate suitably qualified person(s) who shall be responsible for all environmental aspects on site including operation, maintenance & monitoring of the treatment/settlement system. The name of this person(s) shall be identified to Licensing Authority in writing within one month of the date of issue of this licence. The licensee shall provide appropriate training, for all personnel whose work could have a significant effect upon the environment.

4.5 A penstock valve shall be installed to prevent a discharge from the facility in the event that monitoring and/or a visual inspection should indicate that -

(a) Discharge is not within its discharge licence limits or is liable to give rise to a breach in licence limits.

(b) Contamination of water has taken place on site which could adversely affect the quality of the water to be discharged.

4.6 Sediments shall be removed from all settling lagoons, cells, ponds on a regular basis, as deemed necessary by the rate of deposition and shall be disposed of in accordance with current waste legislation.

4.7 All vehicle maintenance shall take place in a roofed area.

CONDITION 5: MONITORING & REPORTING

5.1 The company shall install and maintain on the final effluent discharge pipe a flow proportional sampler and an automatic flow measuring device with a chart recorder which will record instantaneous rate of flow. An integrated unit shall be provided and daily records of the discharge shall be kept. Flow records shall be submitted quarterly to the licensing authority.

5.2 The final effluent shall be monitored in accordance with the requirements set out in Table 2 below. All analysis shall be carried out by an independent laboratory accredited for each of the parameters specified.

Table 2

Parameter	Monitoring Frequency	Analysis method
Flow	Continuous	On-line flow meter with recorder
Temperature	Monthly	Temperature meter
pH	Monthly Note 1	Standard Method
BOD	Monthly Note 1	Standard Method
Total Ammonia	Monthly Note 1	Standard Method
Total Suspended Solids	Monthly Note 1	Gravimetric
Molybdate Reactive Phosphorus	Monthly Note 1	Standard Method
Total Phosphorus (as P)	Monthly Note 1	Standard Method
Nitrite	Monthly Note 1	Standard Method
Sulphates	Quarterly Note 1	Standard Method
Hydrocarbons	Yearly	Standard Method
Conductivity	Monthly Note 1	Standard Method

Note 1: 24 hour composite sample

5.3 The licensee shall install to the satisfaction of the licensing authority an automatic turbidity monitor on the final effluent discharge pipe from the site. The set point on this monitor shall automatically shut down the discharge pumps and activate an alarm in the site management office. The set point and who will be alerted shall be subject to the agreement of the licensing authority at commissioning and shall be reviewed quarterly for the first year of operation and annually thereafter. Any variation on the set point shall be agreed by the licensing authority.

5.4 The Aghamore Stream shall be monitored upstream and downstream of the discharge in accordance with the requirements set out in Table 3 below;

TABLE 3

Parameter	Monitoring Frequency	Analysis method
Temperature	Monthly	Temperature meter
pH	Monthly	Standard Method
BOD	Monthly	Standard Method
Total Ammonia	Monthly	Standard Method
Total Suspended Solids	Monthly	Gravimetric
Molybdate Reactive Phosphorus	Monthly	Standard Method
Total Phosphorus (as P)	Monthly	Standard Method
Nitrite	Monthly	Standard Method
Sulphates	Quarterly	Standard Method
Conductivity	Monthly	Standard Method

5.5 The company shall install and maintain an automatic flow measuring device with a chart recorder to record the rate of flow in the Aghamore stream upstream of the discharge point. Flow records shall be submitted quarterly to the licensing authority.

5.6 The Licensing Authority shall reserve the right after giving advance notice in writing to increase or decrease the frequency of sampling, analysis, flow measurement and method and scope of monitoring and analysis.

5.7 The licensee shall record all sampling, measurements, flow records, examinations, calibrations and maintenance carried out in accordance with this licence, and these records shall be submitted to the licensing authority on a quarterly basis or on request by the licensing authority.

5.8 Certified monitoring results of the final effluent quality and Aghamore Stream shall be submitted to Licensing Authority on a quarterly basis.

5.9 The licensee shall record all complaints of an environmental nature related to the operation of the quarry. Each such record shall give details of the date, time and nature of the complaint and the name of the complainant. A record shall also be kept of the response made in the case of each complaint. These records shall be maintained at the site offices of the quarry and presented to the licensing authority on request.

5.10 The settlement lagoons, ponds, cells should be inspected monthly and tested every three years to ensure they are watertight.

5.11 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Licensing Authority for a limited period. In the event of malfunction of the continuous monitor, the licensee shall contact the Licensing Authority as soon as practicable and alternative sampling and monitoring facilities shall be put in place.

5.12 All treatment, monitoring equipment and the interceptors shall be maintained on a regular basis in accordance with the manufacturer's instructions and recommendations. A log shall be put in place to record the time and date of maintenance, together with any observations made during these inspections. This log shall be made available for inspection on request.

5.13 All waste materials generated on site shall be disposed of in accordance with the requirements of national waste regulations. Records of the type and quantity of waste taken off site, the date of removal and the name of the authorised waste disposal contractor taking the waste shall be maintained on site and submitted to Licensing Authority on request.

5.14 The licensee shall submit to the Licensing Authority, a year from the date of grant of this licence, and each calendar year thereafter, an Annual Environmental Report. This report shall include as a minimum the following information

- Surface water emission limit and flow exceedances
- Waste management report
- Complaints summary
- Pollution emission and environmental incident report, including the date and time of incidents and the steps taken to minimise the emissions and avoid recurrence
- Lagoon, ponds and cells testing and inspection report.

5.15 The Licensee shall provide safe and permanent access to the trade effluent discharge pipeline prior to discharge to the stream. This sampling point shall be accessible at all times to any authorised person under the Local Government (Water Pollution) Act, 1977, as amended. This shall include access to on-site instrumentation for sampling and flow measurement.

5.16 The applicant shall undertake an ecological monitoring survey, to include as a minimum a macroinvertebrate (Q value) survey of the Aghamore Stream, upstream and downstream of the point of discharge of trade effluent from the settlement lagoon on site. The survey shall be carried out by a competent technical professional/ecologist. **Within twelve months of the date of issue of this licence; the licensee shall submit for the formal approval of the Licensing Authority;** a detailed proposal for the survey, including the location of proposed sampling locations and the name of the competent technical professional who shall carry out the survey work. The initial survey shall be completed within 12 months of the date of recommencement of quarrying activities on site and the proposals, as approved by the Licensing Authority, shall be repeated at three year intervals. A site specific report on each survey shall be submitted to the Licensing Authority within three months of completion of the survey.

CONDITION 6: WASTE & OIL MANAGEMENT

6.1 All tank and drum storage areas shall be provided with an adequately designed bund and shall be rendered impervious to the materials stored therein. All tank and drum storage areas shall, as a minimum be bunded to a volume not less than the greater of the following:

(i) 110% of the capacity of the largest tank or drum within the bunded area; or
(ii) 25% of the total volume of substance which could be stored within the bunded area.

6.2 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal. While awaiting disposal, all materials shall be collected and stored in

designated areas protected against spillage. The integrity and water tightness of all bunding structures and their resistance to penetration by water or other materials stored therein shall be tested by the licensee at least once every three years. Records of testing shall be maintained on site and shall be presented to the Licensing Authority on request.

6.3 Concrete aprons that drain to a hydrocarbon interceptor shall be provided at all locations where the storage or handling of hydrocarbons takes place. Where plant is being fuelled on the quarry floor, drip trays shall be used to prevent spillage.

6.4 The licensee shall install and maintain adequately designed oil separators at the site to ensure that all storm water discharges from the site pass through an oil separator in advance of discharge. The separator shall be a Class I full retention separator.

6.5 A maintenance contract shall be entered into with the supplier of the oil separators. A copy of the maintenance contract to be submitted to the Environment Section within 6 months of grant of this licence and thereafter annually.

6.6 Drums of oil, fuels and other chemicals to be stored in the workshop/maintenance shed on spill pallets, unless otherwise agreed in writing with the licensing authority.

6.7 All wastes including waste oils, used batteries etc shall be collected and stored in the workshop. The storage area shall be bunded or otherwise designed so that surface and ground waters cannot be contaminated by spillage.

6.8 All waste shall be recovered or disposed of in accordance with national waste legislation.

6.9 All tanks, containers and drums shall be labelled to clearly indicate their contents.

CONDITION 7: ACCIDENT PREVENTION & EMERGENCY PROCEDURES

7.1 The licensee shall notify The Licensing Authority by telephone and electronic mail as soon as practicable of any occurrence of an accidental spillage, discharge or deposit of any pollutant, which enters or is likely to enter waters or cause environmental pollution. The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and the steps taken to minimise any emissions.

7.2 In the event of an incident the licensee shall immediately-

(i) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising
(ii) isolate the source of such an emission
(iii) evaluate the environmental pollution, if any caused by the incident
(iv) identify and execute measures to prevent further contamination and to minimize the emissions and the effects thereof

7.3 The Licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage.

CONDITION 8: GENERAL

8.1 The company shall pay a sum of €1,200 per annum, subject to annual review, and updated in accordance with Consumer Price Index, to cover the cost of monitoring by the licensing authority.

Advice Note:

Sligo County Council has carried out a review of the existing discharge to waters licence, issued under Section 4 of the Local Government Water Pollution Act 1977 as amended (DL (W) 139 refers).

Further to the review process carried out please note;

(i) The review process has identified the requirement to amend the schedule of conditions detailed in your existing discharge licence (reference no. DL(W)139) issued by Sligo County Council. As a consequence of amendments, Sligo County Council has decided to issue a revised discharge licence, in substitution for discharge licence reference no DL(W)139.

(ii) The administrative reference number of this revised discharge licence is DL(W)151.

(iii) Discharge licence reference no DL(W)151 shall replace in entirety discharge licence reference no DL(W)139. Conditions no's 1-8 of discharge reference number DL(W)151 details the specific legal requirements relating to the discharge of wastewater from your commercial premises to surface water.

(iv) Discharge licence reference no DL(W)139 is now obsolete.

An appeal against a decision of a local authority is provided for by Section 8 of the Local Government (Water Pollution Act) 1977 as amended. The period for the purpose of an appeal shall be;

- In the case of an appeal relating to the grant or refusal of a licence, the period of one month beginning on the date of grant or refusal of the licence.

- In the case of an appeal relating to the decision of a local authority on a review of a licence, the period of one month beginning on the date of the local authority's decision.

Appeals should be addressed to;

An Bord Pleanala,
64 Marlborough Street,
Dublin 1.

An appeal shall be;

- Made in writing
- State the name and address of the appealer
- State the subject matter of the appeal

- State in full the grounds of the appeal and the reasons, considerations and arguments on which they are based

An appeal shall be accompanied by a fee of 126 euros.

Director of Services

24/1/20

Date

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4. AUDIT AND INSPECTION SHEETS

AMENDMENT RECORD

Sheet ID No.	Audit and Inspection Sheet Title	Amendment No.	Date of Issue	Review Date
AIS001	Daily Environmental Site Inspection Check Sheet	1	01.02.2017	05.05.2021
AIS002	Weekly Environmental Site Inspection Check Sheet	1	01.02.2017	05.05.2021
AIS003	Odour Assessment Check Sheet	1	01.02.2017	05.05.2021
AIS004	Water Spraying Schedule	1	01.02.2017	05.05.2021
AIS005	Waste Record Sheet	1	01.02.2017	05.05.2021
AIS006	Incident Notification Form	1	01.02.2017	05.05.2021
AIS007	Environmental Complaints Register	1	01.02.2017	05.05.2021
AIS008	Environmental Compliant Investigation Form	1	01.02.2017	05.05.2021
AIS009	Environmental Training Record	1	01.02.2017	05.05.2021
AIS010	Incoming Post Register	1	01.02.2017	05.05.2021
AIS011	Outgoing Post Register	1	01.02.2017	05.05.2021
AIS012	Corrective & Preventive Actions	1	01.02.2017	05.05.2021
AIS013	Environmental Management Review Form	1	01.02.2017	05.05.2021

Week Commencing _____ Depot _____ **DAILY SITE INSPECTION**

DAY	TIME	AIR QUALITY - VISUAL ASSESSMENTS											HOUSEKEEPING				CORRECTIVE ACTION	SIGNATURE
		WEATHER				Stack Ringelmann Record	SITE LOCATIONS						FUEL STORAGE		WASTE			
		General	Temp	Wind Speed	Wind Direction		Stockpile	Plant & loading areas	Haul Roads & Entrance	Conveyor Drums	Site Boundary		Bunding	Spillages	Adequate Storage Facilities	Disposal Documents on file		
Mon	am																	
	pm																	
Tue	am																	
	pm																	
Wed	am																	
	pm																	
Thur	am																	
	pm																	
Fri	am																	
	pm																	
Sat	am																	
	pm																	

Additional information

Notes *	General	Sunny / Overcast / Fog / Drizzle / Rain / Heavy Rain / Snow / Ice
	Temperature	Freezing / Very cold / Cold / Cool / Warm / Hot
	Wind speed	Calm / Gentle Breeze / Breeze / Strong Breeze
	Wind direction	North / North East / East / Southeast / South / Southwest / West / Northwest
	Visual assessment	None / Insignificant / Visible (No offsite Impact) / Obvious (Offsite)
	Corrective action	Brief description of problem and corrective action taken

TASK DESCRIPTION				DETAILS & COMMENTS		CPA REF
1	**Surface Water Discharges**					
Look for visual contamination at the following locations. If Yes initiate corrective action.				**YES**	**NO**	**DETAILS**	**CPA REF**
(i) Discharge from the settlement lagoon.							
Was a sample taken?							
Was the Technical Director called?							
(ii) Discharge Point into receiving surface waters							
Are any abnormalities observable? (colour, oil, flow)							
Was a sample taken or Technical Director called?							
2	**Dust Management System**					
Check the effectiveness of the dust suppression system at the following locations. If dust levels are high initiate corrective action.				**YES**	**NO**	**DETAILS**	**CPA REF**
(i) Material Stockpiles, storage bays and bins							
(ii) Exposed surfaces							
(iii) Haul roads							
(iv) Wheel washes							
(v) Site entrance roadway							
(vi) Neighbouring residences							
3	**Dust gauges**					
Check the dust gauges for the following:							
GAUGE	**GAUGES CHECKED**	**ARE THEY STILL IN POSITION**	**IS THE WATER LEVEL OK**	**PHOTO**	**OTHER COMMENTS**	**CPA REF**
D1						
D2						
D3						
D4						
D5						
D6						
4	**Storage area bunds**					
Check bunds around the fuel, oil and waste and chemicals storage areas for build up of water (above 10% line) . Are there signs of bund water contamination? If yes:				**YES**	**NO**	**DETAILS**	**CPA REF**
(i) is there a leak or spill from a tank or container?							
(ii) arrange a test of the COD of the bund water.							
If there is a leak issue a corrective action and repair the container immediately							
If the water level is more than 50% of the bund level and is uncontaminated pump to the settlement pond							
If the water is contaminated arrange for storage and disposal as per hazardous wastes as specified in procedure DP003.							

TASK DESCRIPTION		DETAILS & COMMENTS			
5	**Site housekeeping**				
Is there litter around the site? If yes initiate corrective action.		**YES**	**NO**	**DETAILS**	**CPA REF**
6	**Waste Storage area**				
Is the area generally tidy and waste stored in appropriate containers? If no initiate corrective action.		**YES**	**NO**	**DETAILS**	**CPA REF**
Is there any evidence of contamination of soil? If yes initiate corrective action.					
7	**Hazardous Waste Storage area**				
		YES	**NO**	**DETAILS**	**CPA REF**
(i) Is the area generally tidy and waste stored in appropriate containers? If no initiate corrective action.					
(ii) Are all labels clearly visible and readable? If no initiate corrective action.					
(iii) Is there any evidence of contamination of soil? If yes initiate corrective action.					
8	**Surface Water Management System**				
Inspect the following locations and check for visual contamination. If there is contamination initiate corrective action:		**YES**	**NO**	**DETAILS**	**CPA REF**
Settlement Lagoon					
Drainage Ditches					
Site stream upstream of site					
Site stream downstream of site					
Inspect the drainage ditches for signs of erosion. If there is erosion initiate corrective action such as lining the channel or altering the gradient					
9	**Vehicles and plant**				
Check vehicles to ensure that they are not excessively noisy.		**YES**	**NO**	**DETAILS**	**CPA REF**
Check plant and machinery to ensure that it is not excessively noisy.					
10	**Stockpiles and temporary fill areas**				
Is there potential for erosion to nearby watercourses? If yes initiate corrective action to cover the area with polythene		**YES**	**NO**	**DETAILS**	**CPA REF**
11.	**Oil Interceptors**				
Are there any signs of contamination from the outflow of the interceptors?		**YES**	**NO**	**DETAILS**	**CPA REF**

Complaints

Were any complaints made. **Yes / No**

If Yes please complete the Environmental Complaints Register and the Environmental Complaints Investigation Form.

Type of complaint eg Noise, dust vibration, surface water, water supply traffic nuisance

Other relevant information

_____
_____
_____
_____
_____
_____
_____
_____

Contact the Technical Manager in the event of non-compliance/site observations, problems etc.

Inspection Completed By _____

Date _____ **Time** _____

Odour Assessment Log sheet **Date_____**

Location	Time	Weather		Wind		Visual Assessment	Odour Identified		Description of Odour Identified (e.g. character, intensity)
		General	Temp	Speed	Direction		YES	NO	

Notes *			Additional information
	Location	Upwind or downwind of plant (state whether north, south, east or west of plant)	
	General	Sunny / Overcast / Fog / Drizzle / Rain / Heavy Rain / Snow / Ice	
	Temperature	Freezing / Very cold / Cold / Cool / Warm / Hot	
	Wind speed	Calm / Gentle Breeze / Breeze / Strong Breeze	
	Wind direction	North / North East / East / Southeast / South / Southwest / West / Northwest	
	Visual assessment	None / Insignificant / Visible (No offsite Impact) / Obvious (Offsite)	
	Corrective action	Brief description of problem and corrective action taken	

WATER SPRAYING SCHEDULE						
DATE	**TIME**	**AREAS SPRAYED**				
		External roads	**Entrance Road**	**Haul Roads**	**Stockpiles**	**Other (specify)**

DATE OF DISPATCH	CONTRACTOR DETAILS	DESCRIPTION OF WASTE	EWC Code	HAZARDOUS / NON-HAZARD	METHOD OF DISPOSAL Recycle, Landfill etc	QUANTITY

Notification reference		**Incident (Tick one or more)**				**Source of information (tick one or more)**	
Issued by		**Traffic**		**Water supply**		**Monitoring**	
		Noise		**Surface water**		**Complaint**	
		Vibration		**Odour**		**Site Inspection**	
Date issued		**Dust**		**other**		**Other**	
Date of incident		**Time of incident**					

Incident details (include details and circumstances giving rise to)

Evaluation of environmental pollution (if any) caused by incident

Recommended corrective and/or preventive action	**Sent to: _____** **Date: _____**
Action Taken: **Date:_____ Signed:_____**	**Date for reassessment:** **_____** **Done? YES/NO**

Follow up action (if any recommended):

Reported to Technical Manager YES / NO	**Date: _____** **Signed: _____**
Action Completed? **YES / NO**	**Date: _____** **Signed: _____**

Depot	

Date	**Time**	**Complaint from**	**Contact details**	**Nature of complaint**	**Complaint taken by**	**Complaint notified to**	**Date notified**	**Follow up**

Complaint reference number		**Received by**	
Date Received		**Time received**	

Complainant's details

Name:	
Address:	
Contact numbers:	

Complaint Type	**Noise**		**Traffic**		**Water supply**		**Odour**	
	Vibration		**Dust**		**Surface water**		**Other**	
Details & location of complaint e.g. dust settling on property under southerly wind								

Investigation: e.g. weather conditions at time, site activities

Monitoring results (where available):

Actions taken:	Is there a non-compliance requiring corrective or preventative action? YES/NO If Yes please fill out Corrective and Preventive Action Record

Recommendation for further monitoring:

Date outcome communicated to:

Complainant	**Relevant Authority**	**Technical Manager**
Date _____ **Signed:**	**Date** _____ **Signed:**	**Date:** _____ **Signed:**
Completed? Yes / No	Date _____ Signed _____ Technical Manager	

TRAINER:	(Print Name)	(Signature)

TRAINEE (Print)	TRAINEE (Signature)	Date

SUBJECT:	DOCUMENT REFERENCE:	PLEASE TICK AS APPROPRIATE:
Air Quality & Air Emissions Management	DP001	
Energy Management	DP002	
Waste Management	DP003	
Emergency Preparedness & Response	DP004	
Legislation Management	DP005	
Fuel, oil, Bitumen & Chemical Storage	DP006	
Oil Interceptor Management	DP007	
Water Management	DP008	
Ecological Management	DP009	
Noise & Vibration Management	DP010	
Landscape & Visual Impact	DP011	
Traffic Management	DP012	
Archaeology Impact Management	DP013	
End-of-Life Plant Management	DP014	
Site Security	DP015	
Contractor Management	DP016	
Communications, Incidents & Complaints	DP017	
Corrective & Preventive Actions	DP018	
Site Inspection Checklists	DP019	

_____ _____

Trainer **Date**

Depot:

Incoming Correspondence – Environmental Matters			
Date Received	**From Whom**	**Subject Matter**	**Action Taken**

NOTE: Include Routine Reports

Depot:

Outgoing Correspondence – Environmental Matters			
Date Sent	**To Whom**	**Subject Matter**	**Remarks**

CPA reference number		Non-conformance (Tick one or more)				Source of information (tick one or more)	
Issued by		Traffic		Water supply		Monitoring	
		Noise		Surface water		Complaint	
		Vibration		Odour		Site Inspection	
Date issued		Dust		other		Other	

Non-compliance details	
Recommended corrective and/or preventive action	Sent to: _____ Date: _____
Action Taken: Date:_____ Signed:_____	Date for reassessment: _____ Done? YES/NO
Follow up action (if any recommended):	

Reported to Technical Manager YES / NO	Date: _____ Signed: _____
Action Completed? YES / NO	Date: _____ Signed: _____

Annual Environmental Management Review

Site Name:

Date of Review:

Attendees:

Topics to be covered:

1. Review of objectives and targets for previous year;
2. Objectives and targets and risks & opportunities for coming year;
3. Review of internal and external audits completed for the site;
4. Review of non-compliances issued in the previous year;
5. Review of legal compliance for the previous year;
6. Review of communication (Internal and External) for the previous year;
7. Review of legislation changes, compliance obligations and other legal requirements that impact the EMS;
8. Review of minutes from previous years meeting;
9. Follow up actions from previous management reviews;
7. Review of performance of contractors and suppliers;
8. Improvements to the EMS;
9. Resource needs;
10. Review of environmental aspects;

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ISO 14001: 2015

5. ENVIRONMENTAL TRAINING FOR CONTRACTORS

Environmental Training For Contractors

1. Introduction

This document sets out the environmental rules that must be followed by all contractors carrying out works of any nature at the Aughamore, Co. Sligo site. This document has been designed as an environmental training document and all contractors entering the site are required to read this document in addition to Depot Procedure DP016 Contractor Management. Once this document and Depot Procedure DP016 have been read by each contractor, Sheet AIS009 Environmental Training Record should be signed by each contractor who completed the training.

2. Environmental Management at the Site

The site is accredited to the Environmental Standard ISO 14001 and as such, all occupants of the site are required to fully comply with the requirements of meeting this standard. This Standard ensures that all activities carried out at the site do not have an adverse impact on the receiving environment. The following sections set out the rules and guidelines that must be adhered to by all contractors while occupying the site.

2.1 Prior to Works Commencing at the Site

Prior to any works commencing at the site a point of contact shall be established with site management and the following requirements must be demonstrated by the contractor to the satisfaction of the Depot Manager.

- All plant and equipment brought onto site by the contractor must be fit for purpose and meet the relevant legislative standards.
- All contractors shall identify how their activities could impact on the environment and detail their works to be undertaken and the associated precautions to be taken before permission for work is granted;
- The contractor shall notify Site Management of any hazardous substances they will be using on site and how these will be controlled.

2.2 Movement on the Site

Contractors shall sign-in at Reception upon arrival to the site and sign-out upon departure of the site. This must be done each time upon entering and departing the site regardless of the number of times it occurs in any one working day. Contractors shall only work on the site during the permitted hours as per the Planning Requirements and any works outside of these hours must be arranged and agreed with site management.

2.3 Incidents and Injuries

All incidents and injuries must be reported to the Site Contact as soon as they occur. All of the following constitute an incident and must be reported:

- Spills and Leaks
- Fire
- Contamination of ground, surface water or groundwater
- Flooding
- Power Failure

2.4 Fuels, Oils and Chemicals

- All items of plant and containment vessels used on site shall be maintained in good condition and regularly inspected for leaks.
- All fuels, oils and chemicals must be stored within a bunded area.
- Any fuel storage brought onto site must comply with the oil storage regulations.
- Refuelling should only be carried out in designated areas.
- All spillages must be cleaned up immediately and reported to site management for correct disposal. In the event of a spillage with the potential to result in environmental pollution, site management should be contacted immediately. Site management will implement the emergency procedure if deemed necessary.

2.5 Hazardous Substances

Site management must be notified of, and agree to the use of any substances that could be harmful to health or the environment prior to the substance being brought on to site. Information, in the form of a COSHH data sheet, giving environmental effects of the substance(s), together with control measures required for use, must be provided.

2.6 Waste Management

All waste produced shall be disposed of in accordance with the sites waste management system. All waste generated must be correctly classified and disposed of. If current site waste facilities are used then permission must be obtained from site management who will advise of the waste container to use.

2.7 Dust Management

Appropriate and reasonable measures to prevent dust release to atmosphere from the activity must be put into place. If dust emissions are observed then operations should cease until control measures are in place. Any serious dust emissions should be reported to site management immediately.

2.8 Noise and Vibration Control

Noise and vibration must be kept to a minimum. Noise & vibration limits are in place at the site and these should be strictly adhered to at all times. In the event of any excessive noise or failure of vehicle or plant silencer systems, site management should be consulted to assess whether work can continue. During noisy activities or activities likely to give rise to significant ground vibrations the contractor shall firstly notify site management who will decide if noise and vibration monitoring should be carried out to ensure planning limits are not breached.

2.9 Housekeeping

All areas of work shall be maintained in an orderly manner, free from accumulated debris or waste.

3. Approval for Completed Training

All contractors must sign and date the section below showing that they have read and understood the contents of this document. The site contact for Lagan Materials Ltd must also sign and date this document confirming that the training has been completed. Sheet AIS009 Environmental Training Record should be signed by each contractor who completed the training.

Lagan Materials Ltd Site: Aughamore, Co. Sligo.

Lagan Materials Ltd Contact:	_____	_____	_____
	Print Name	Signature	Date
Contractor Name:	_____	_____	_____
	Print Name	Signature	Date