CHAPTER 3

PROJECT DESCRIPTION

FEBRUARY 2025

QUARRY CONSULTING

Table of Contents

CHAPTER 3: PROJECT DESCRIPTION

Existing Environment

3.1 The existing operational limestone quarry extraction covers an area of approximately 13 hectares, with details of the site layout shown on Figure 1.3. The lowest point on the existing permitted quarry floor is -5 mOD.

3.2 The existing site operations comprise extraction of limestone using blasting techniques, processing (crushing and screening) of the fragmented rock to produce aggregates for construction purposes. Existing manufacturing activities at the quarry include a concrete (readymix and blocks) facility.

3.3 The existing operations at the site are currently regulated by conditions imposed under Plan Ref. File No. 09/1958 & PL 07.235821 and Plan Ref File No. 09230 and 19/517: ABP-304769-19.

3.4 Ancillary facilities at the existing quarry include an office, weighbridge, canteen, toilets and a wheelwash (with side and overhead spray bars).

Proposed Development

3.5 The proposed development comprises the following:

- Continued extraction of the existing quarry to the permitted depth of minus 5 mOD, including drilling, blasting, crushing, processing, stockpiling of materials, associated roads and ancillary services (granted under Planning Ref. File No.: 09/1958 and ABP Ref.: PL07.235821);
- Continued use of open storage areas;
- Continued use of existing permitted concrete manufacturing facility (granted under Planning Ref. File No. 09230 and 19/517: ABP-304769-19);
- Continued use of the existing office (granted under Planning Ref. File No.: 09/1958 and ABP Ref.: PL07.235821);
- Continued use of the existing maintenance shed (granted under Planning Ref. File No. 09610);
- Continued use of the existing water management system (including settlement lagoons), weighbridge and wheelwash;
- Lateral extension of the existing permitted quarry area over a previously permitted extraction area (granted under Planning Ref. File No. 06/4125) of c.4.6 ha. area to a final floor level of minus 5 mOD. The total quarry extraction area will be c. 13 Ha.;
- Restoration of the application area to natural habitat after uses following completion of extraction.

3.6 The proposed development is within an overall application area of c. 27.5 hectares and is for a total period of 22 years (comprising an operational period of 20 years followed by 2 years for restoration).

Method, Rate and Duration of Extraction

3.7 Blasting is, and will continue to be, used within the quarry area including the application area to fragment the stone prior to processing (crushing and screening). Blasting is undertaken approximately once in a 5 week period, potentially increasing to two times during periods of high demand.

3.8 Aggregate extracted from the application area will be loaded onto dump trucks and taken to the existing processing plant within the quarry void, where it will be processed using mobile crushing and screening plant within the quarry void. Processed rock will be stored in the quarry area pending use in the ancillary manufacturing plant (concrete) on site or sale off site.

3.9 An outline of the proposed extraction plan and the final ground level contours is shown in Planning Drawing 5. Cross-sections through the final landform are shown in Planning Drawing 7.

Table 3.1: Material Quantities

Material	Quantity
Rock	Approx. 1.5 million m³ or 3.9 million tonnes

3.10 The duration of quarrying activities at the application site will largely be dictated by market demand and as a result the rate of extraction. 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).

3.11 In light of these and other variables, calculation of output rates and duration is not an exact science. The **maximum** quarry extraction rate at the quarry is anticipated to be up to **400,000 tonnes per annum** to allow the applicant respond to demand for aggregates for large infrastructure projects in the Region. This increased output will result in higher HGV traffic volumes, particularly during peak extraction periods. A detailed traffic impact assessment (refer to Chapter 13: Traffic) has been carried out and has confirmed that the local road network has sufficient capacity to accommodate the anticipated increase in HGV movements without resulting in any adverse impacts on traffic flow, safety, or road conditions.

3.12 A planning permission duration of 20 years is sought for the extraction and processing period and a further 2 years to complete final restoration of the site.

3.13 An outline of the proposed extraction plan and the final restoration plan is set out in Planning Drawings 5 & 6. Cross-sections through the final landform are set out in Planning Drawing 7.

Topsoil and Overburden Management

3.14 As the site comprises an existing limestone quarry, the operational areas have been previously stripped of soils. Some soil / subsoil material remains stored within the lateral extension area, which will be removed and used internally for site restoration purposes. Additional soils are currently stored in screening berms along the site perimeter, which will also be utilised in the final restoration of the quarry.

Site Screening

3.15 Screening of the proposed development will be implemented through a combination of design and phasing of the workings; existing external hedgerows; and existing landscaped screening berms and the surrounding topography – refer to Figure 3.1 and Chapter 12: Landscape.

3.16 Landscaped berms are already in place around all the property boundaries adjacent to the extraction area. If additional berms are required, or repairs to berms are needed, these will be constructed by the applicant in accordance with relevant Health and Safety Guidance and other relevant guidelines.

Site Drainage

3.17 The depth of excavation and current quarry floor level has not intercepted the groundwater conduit system, and therefore only small amounts rainfall runoff has to be managed within the quarry area (refer to EIAR Chapter 8). The majority of rainfall percolates to ground via the quarry floor. Excess runoff is directed to a low-lying collection area (sump), currently located in the centre of the quarry floor, into which all water from the working area of the quarry drains and will continue to drain from the proposed extension area.

3.18 Water draining to the low-lying collection area is allowed to settle for long periods of time, before being pumped periodically up to the top of the quarry face, and discharged into a concrete settlement tank. Water leaves the settlement tank via a level weir and oil interceptor and is then discharged to

a large, stoned infiltration area under Discharge Licence (W/469/13). This limits the volumetric discharge to 360m^3/day.

3.19 The proposed extraction area will have a floor level no lower than the current floor level of the existing quarry at minus 5 mOD. Drainage of surface water from these proposed areas will be managed with the same low-lying collection area and pump arrangement as in the existing quarry. The storage volume of the existing low-lying collection area will be increased to facilitate increased surface runoff from the proposed quarry extension. Regular maintenance of the to a low-lying collection area will be carried out, which will involve removal of silt.

3.20 Surface water runoff from the area of the batching plant and concrete block yard drains to a staged precast concrete settlement tank, which is located adjacent to the batching plant. The settlement tank is a closed circuit system. During dry periods, the tank is topped up from an existing on site bored well, which is located on the north-eastern corner of the site. The well is also used to provide water as an office supply and as a top-up for the screening plant during dry periods and for production.

3.21 A hydrological / hydrogeological assessment has been carried out taking into consideration the existing and proposed water regime at the site. It addresses mitigation measures to eliminate and/or minimise the potential impacts, if any, on surface water and groundwater – refer to Chapter 8 (Water).

Wastewater Treatment

3.22 Waste water from toilet facilities will continue to be treated by the existing waste water treatment system. As no changes are proposed to staff numbers, the existing system has sufficient capacity, and no improvements or upgrades are required.

Stability of the Quarry

3.23 Industry standard slope angles, bench heights, and bench widths will be used for extraction operations at the site and within the application area.

Method of Extraction

3.24 Blasting is, and will continue to be, used within the quarry area including the application area to fragment the stone prior to processing (crushing and screening).

3.25 Blasting is undertaken approximately one day per 5 week period, potentially increasing to twice during periods of high demand.

3.26 Blasting will be undertaken by a third party operator, as currently occurs on site. Drill rigs on the existing quarry floor will be used to drill the charge holes ready for blasting to begin the process of lowering the floor. The rigs will be equipped with dust suppression equipment and noise and vibration monitoring will take place as part of the process.

3.27 The recovered rock from the active face will be processed in a similar manner to that already occurring on site using existing site infrastructure and plant. The blasted rock will be crushed and screened and conveyed to stockpiles for subsequent loading to trucks by loading shovels.

Processing Methods

3.28 The limestone will be drilled and blasted to fragment the rock, which will then be transferred to the processing plant.

3.29 The material will be crushed and screened. Material will then be graded and stored in stock piles prior to removal from the site or transferred for use at the concrete batching plant.

Concrete Production

3.30 The existing concrete manufacturing facility is situated in the central portion of the site and is a key component of site activities. The plant produces a range of concrete products using materials sourced both from within the site and externally.

3.31 Aggregates produced on-site are a primary component of the concrete mix, ensuring efficient utilisation of locally available materials. Additionally, sand is imported into the site to meet specific production requirements. The imported sand is stored in dedicated stockpiles. Cement, another critical ingredient in concrete production, is also imported to the site. It is stored in secure, purpose-built silos that are equipped with appropriate environmental controls to prevent emissions and ensure compliance with best practice guidelines.

Quarry Working Hours

3.32 It is proposed to continue to operate the quarry in accordance with existing approved operations.

Monday – Friday:	08:00 – 18:00
Saturday:	08:00 – 16:00

3.33 Truck loading activities can be undertaken between the additional hours of 07:00 and 08:00 Monday – Saturday inclusive. Blasting is confined to between 10:00 and 17:00 Monday to Friday.

3.34 No operations on Sundays or Public Holidays.

Employment

3.35 The proposed development will provide continued employment of up to 12 people directly on-site, in addition there are typically 10 indirect employees such as crushing contractors, HGV drivers, maintenance contractors, etc..

3.36 The continued development of the site is consistent with the policies set out in the National Planning Guidelines for the sector; the Regional Planning Guidelines and the Galway County Development plan which recognise the requirement for:

- A secure supply of construction aggregates and related products 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.

SITE INFRASTRUCTURE

Site Access

3.37 It is proposed that traffic entering and leaving the site will continue to utilise the existing access on the L7109.

3.38 An existing wheelwash is in place on the site in proximity to the site access.

Site Security

3.39 Vehicular access to the application site is from the existing site entrance only. There is no other vehicular access to the application site. The access gate is locked outside operational hours.

3.40 The perimeter of the working area will continue to be secured in accordance with the relevant Health and Safety legislation and guidelines.

3.41 Existing hedgerows, fencing and screening berms will remain in place and will be supplemented as required to ensure that there will be no accidental entry to the working areas.

3.42 Warning signs will continue to be displayed at appropriate intervals along the property boundary.

3.43 The security measures employed will ensure that accidental entry to the site is prohibited. Regular inspections of the site security arrangement will be undertaken by site operatives and repaired immediately if any damage is noted.

3.44 All personnel will be appropriately trained and certified in the safe quarrying, handling, transportation and processing of aggregate materials. All personnel will be thoroughly trained on the properties of all materials and products being handled within the quarry and will be trained to react in the unlikely event of an unplanned incident.

Site Roads, Parking and Hardstanding Areas

3.45 All HGVs utilising the quarry will be confined within the Applicant's landholding.

3.46 Adequate car parking provision for employees and visitors is provided at the existing weighbridge office as indicated in Figure 1.3.

Offices and Ancillary Facilities

3.47 Existing permitted ancillary facilities at the site include a wheelwash, weighbridge, car park area, site office, maintenance garage and staff facilities/canteen.

Wheelwash

3.48 In order to prevent the transport of any clay or dust onto the public road network, a wheelwash has been installed along the access road to the site (as per condition no. 21 of Plan File Ref. No. 09/1958 & ABP PL 07.235821). All HGV traffic exiting the quarry are required to pass through the existing wheelwash, the location of which is indicated on the site infrastructure layout in Figure 1.3. The wheelwash is connected to a closed water lagoon system that collects and recirculates all water used during the washing process, ensuring efficient water use and preventing discharge to the surrounding environment.

Weighbridge

3.49 In order to track and record the amount of material exiting the quarry, all HGV traffic is directed across the existing weighbridge, the location of which is also indicated on the site infrastructure layout in Figure 1.3.

Utilities and Services

3.50 The wheel wash is powered by electricity, and can be switched on and off as required.

3.51 Water to supply the quarry is and will be sourced from the existing water management system and a bored well on the quarry property. The quarry sump supplies water for dust suppression and material wetting, while the bored well is and will be used for drinking water, supply for the wheel wash and concrete production.

3.52 There is an existing effluent treatment system in place at the existing permitted quarry. The loading on the system will remain unchanged as a result of this application for the continuation of use and extension of the existing limestone quarry and concrete manufacturing facility.

3.53 All of the aforementioned infrastructure will remain in place to facilitate the proposed development.

3.54 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) are kept 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.

3.55 There are two 100kV overhead electricity cables crossing the proposed site. No underground electrical services exist within the proposed quarry extension area. Relocation of the overhead

electrical services that cross the site will not be required. The quarry operator is in communication with ESB Networks regarding work in the vicinity of overhead lines. The operation of the proposed development will have an imperceptible impact on above ground or underground electrical or telecommunications networks. There are no known telecommunication services in the proposed quarry extension area.

Lighting

3.56 Sufficient lighting is provided at the existing quarry site to ensure safe operations during winter periods.

Fuel and Oil Storage

3.57 No new fuel or oil storage systems are proposed. All fuel, oils and admixtures are stored at locations around the manufacturing area of the existing quarry. Fuel is delivered to site by fuel companies and dispersed directly into a mobile double skinned fuel bowser. A small volume of fuel is stored in storage tanks located at the working quarry, that are appropriately bunded to contain any potential leakages. No other large volumes of fuel, chemicals or admixtures will be stored at the application site.

3.58 For heavier plant and machinery that are based on-site, refuelling will be carried out using the mobile double skinned fuel bowser. The fuel bowser, a custom-built refuelling trailer will be re-filled on site and towed around the site by a tractor to where the machinery is located. The tractor will carry fuel absorbent material and pads in the event of any spillages. Drip-trays will be used for fixed or mobile plant such as pumps and generators in order to retain potential oil leaks and spills. The drip tray will have a capacity of 110% of the volume contained within the machine/generator. The fuel bowser, when not in use, is stored on a hard standing area with an associated oil interceptor at the maintenance shed area.

3.59 Waste oils will be appropriately stored before being removed from site by a licenced contractor.

3.60 Contamination by oil or chemicals on site will be mitigated by ensuring that liquid storage is over an impervious concrete surface.

3.61 Staff responsible for fuel storage will be trained in proper fuel handling and spillage response procedures.

Landscape and Boundary Treatment

3.62 The boundaries of the site are securely fenced with stock-proof fencing, warning signage, screening berms and mature hedgerows. The site boundary will continue to be inspected on a regular basis and maintained as required under the Mines and Quarries Legislation.

3.63 The existing entrance to the site has lockable gates to prevent unauthorised access outside of the working hours.

Waste management

Extractive Waste Management

3.64 Almost all products and by-products arising from the aggregate processing have commercial value.

3.65 Any general waste materials from the site are stored, collected, recycled and/or disposed of in accordance with any requirements of the Waste Management Regulations.

General Waste Management

3.66 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 the processing plants and can cause a nuisance if allowed to build up in an uncontrolled manner. A designated scrap

metal area is and will continue to be controlled by the regular removal by licensed scrap metal dealers.

- Used Oil and Oil Filters – any waste oil/oil filters that may arise from servicing of fixed or mobile plant is removed from the site by a licensed waste contractor.
- Used Batteries – similarly all used batteries are removed from site for collection and recycling by a licensed waste contractor in accordance with the Waste Management Regulations.
- Domestic Type Waste (Canteen Waste) – domestic waste generated at the offices and employee's facility is collected by a licensed waste collection contractor.

EXISTING ENVIRONMENTAL CONTROLS

General

3.67 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, processing and manufacturing operations. The environmental control measures in place at the site are outlined in the relevant EIAR Chapters.

3.68 The existing operations at the site are currently regulated by conditions imposed under Plan File No. 09/1958 & ABP PL 07.235821 and Plan Ref File No. 09230 and 19/517: ABP-304769-19.

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

Bird Control

3.70 As the process of stone extraction 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.

3.71 In addition, a peregrine falcon (*Falco peregrinus*) nest has been identified within the existing quarry extraction area. The peregrine falcon, residing in its natural habitat in the quarry, has been observed at the nest to the southeast of the site since 2016. To protect this species and its habitat, the extraction plan has been adjusted to exclude the area surrounding the nest, as indicated in planning Drawing 5. This adjustment ensures that the peregrine falcon remains undisturbed by quarrying activities. No specific bird control measures are required for this species, but ongoing monitoring will be undertaken to ensure the falcons continue to thrive during the extraction works. A peregrine management plan is provided in Chapter 6: Biodiversity.

Traffic Control

3.72 As the planning application relates to the continuation of use and extension of the existing site operations, including an increase in HGV traffic volumes, the proposed development will continue to utilise the existing site entrance and established haul routes, which have been assessed as suitable to accommodate the anticipated increase in traffic.

Litter Control

3.73 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.

3.74 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

3.75 As the 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

3.76 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

3.77 In the unlikely event that a fire does occur, the local fire station 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.

3.78 A range of fire extinguishers (water, foam and CO_2) are kept at the site office to deal with any localised small scale fires which might occur and on quarry vehicles. Additional fire-fighting capacity can be provided by storing water in a mobile bowser.

Surface Water Management

3.79 As stated earlier the depth of excavation and current quarry floor level has not intercepted the groundwater conduit system, and therefore only small amounts rainfall runoff has to be managed within the quarry area (refer to EIAR Chapter 8). Water entering the proposed quarry extension area will continue to drain across the quarry floor to a to a low-lying collection area located in the western side of the existing quarry extraction area and be managed in the existing water management system for the quarry.

Dust Generation and Control

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

3.81 The incidence of fugitive dust outside of the operation is reduced by 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 10 – 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.

3.82 In order to control dust emissions, the following measures will continue to be implemented:

- Water will continue to be sprayed from a tractor drawn bowser on dry exposed surfaces and stockpiles (paved roads, unsealed haul roads and hardstand areas);
- Areas of bare or exposed soils will, insofar as practicable, be kept to a minimum;
- To prevent dust or fines being carried onto the public road network periodic sweeping of internal paved site roads will be carried out, as required;
- All HGVs exiting the quarry site will pass through the wheel wash facility;
- Provision of enclosed batch conveyor and mixing house;
- Provision of high-level alarms, pressure valves, and dust filters on cement silos;
- Emission of fugitive dust from machinery such as processing plant will be minimised by utilising dust suppression and by locating such plant within the quarry area, where possible.

3.83 Dust deposition monitoring is currently carried out as part of the environmental monitoring programme carried out at the quarry site, and the monitoring will be extended to include the application area. Dust deposition monitoring results will continue to be submitted to Galway County Council on an annual basis - refer to EIAR Chapter 10 – Air Quality.

3.84 Mitigation measures are provided in accordance with the DoEHLG (2004) guidelines for the sector and EPA (2006), refer to EIAR Chapter 10.

Noise Generation and Control

3.85 The sources of noise located within the planning application area will primarily be related to machinery / plant operation.

3.86 The potential for noise generation from the planning application area will be reduced by locating the mobile crushing and screening plant within the quarry void. This means that the potential for noise generation from activities associated with the operation of the plant such as the movement of vehicles and maintenance will be reduced – refer to Chapter 11.

3.87 In addition to the above the following good housekeeping measures are in place and will be extended to include the application area, where applicable, in order to reduce noise emitted from plant and machinery as much as possible:

- All machinery used is CE certified for compliance with EU noise control limits;

3.88 The machinery will continue to 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 are 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 to reduce engine / brake noise from heavy vehicles.

3.89 Mitigation measures are provided in accordance with the DoEHLG (2004) and EPA (2006) guidelines for the sector.

3.90 There is an existing noise monitoring programme at the quarry site and ongoing noise monitoring is carried out as part of the environmental monitoring programme. The noise monitoring programme will be extended to include the application area. Noise monitoring results will continue to be submitted to Galway County Council on an annual basis.

Blasting Control

3.91 Blasting mitigation measures relate to blasting procedures such as the quantity of explosive and charge-hole spacing along the quarry face. Additional mitigation measures currently carried out at the quarry site and extended to include the application area include:

- Include geological considerations in blast design;
- There will be no blasting outside the hours of 10:00 and 17:00 during Monday to Friday and none taking place at the weekend or public holidays as per condition 16 of ABP PL 07.235821.
- Optimise blast design along the rock-face with adequately spaced charges;
- Ground vibration levels will be limited to a maximum peak particle velocity (PPV) of 12 mm/s at the nearest occupied dwelling, in accordance with industry best practice and regulatory guidelines;
- Air overpressure will be controlled through proper blast design, spacing, and timing of multiple charges, with a limit of 125 dB(Lin) max peak, with a 95% compliance rate;
- Blast monitoring will be undertaken at the nearest occupied dwelling for each blast carried out on site;
- Inform nearby residents on day prior to planned blasting schedule using house-calls, telephone and written note/signage at the quarry entrance (or combination).

EXISTING ENVIRONMENTAL MONITORING

General

3.92 The quarry site has an established environmental monitoring plan in operation. Dust, Noise, Water and Blast monitoring is carried out on a regular basis, to demonstrate that the development is not having an adverse impact on the surrounding environment.

3.93 Refer also to EIAR Chapter 17: Mitigation and Monitoring.

Dust Monitoring: (Condition 13 of Plan File Ref. No. 09/1958 & ABP PL 07.235821)

3.94 Dust deposition monitoring is currently carried out at the quarry site – refer to Chapter 10. Dust monitoring locations shall be reviewed and revised where necessary to include the application area. The results of the dust monitoring will be submitted to Galway County Council as part of the annual environmental report (AER).

Noise Monitoring: (Condition 14 of Plan File Ref. No. 09/1958 & ABP PL 07.235821)

3.95 Noise monitoring is currently carried out at the quarry site – refer to Chapter 11. Noise monitoring locations shall be reviewed and revised where necessary to include the application area. The results of the noise monitoring will be submitted to Galway County Council as part of the annual environmental report (AER).

Water Monitoring (Condition 7. & 17. of Plan File Ref. No. 09/1958 & ABP PL 07.235821)

3.96 Surface water and groundwater monitoring at the quarry site will continue in line with the water discharge licence (W/469/13) for the site.

Vibration: (Condition 16. of (ABP PL 07.235821)

3.97 Monitoring of blasts (both for groundborne vibration and air overpressure) is carried out for all blasts carried out at the quarry site and will be extended to include the application area - refer to Chapter 11. The blast monitoring results will continue to be submitted as part of the annual environmental report (AER).

PROPOSED FINAL RESTORATION

Proposed Restoration Scheme

3.98 The proposed restoration scheme for the planning application area is shown on the restoration plan Appendix 3.1.

3.99 Once all extraction operations have been completed on site 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:

- All plant and machinery will be removed from the quarry void, and wider quarry area.
- The quarry pumps will be switched off and all associated discharge pipe infrastructure will be removed allowing the quarry void to fill naturally with water creating a lake type restoration.
- The application area will be left for natural recolonisation by locally occurring grass and shrub/scrub species.
- All existing boundary fences and hedgerows will be retained to ensure that the site is secure.

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

Site Management and Supervision

3.101 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

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

Long Term Water

3.103 Surface water will percolate to ground or be directed to the water body within the void created by quarrying – refer to EIAR Chapter 8.

Decommissioning of Plant and Machinery

3.104 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.

3.105 As part of the overall decommissioning process the septic / effluent treatment tanks within the existing permitted quarry site will be removed from the site by a licensed waste contractor. Any remaining fuel in the bunded fuel storage tanks will be removed 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 at the quarry site.

Aftercare and Monitoring

3.106 Aftercare will include:

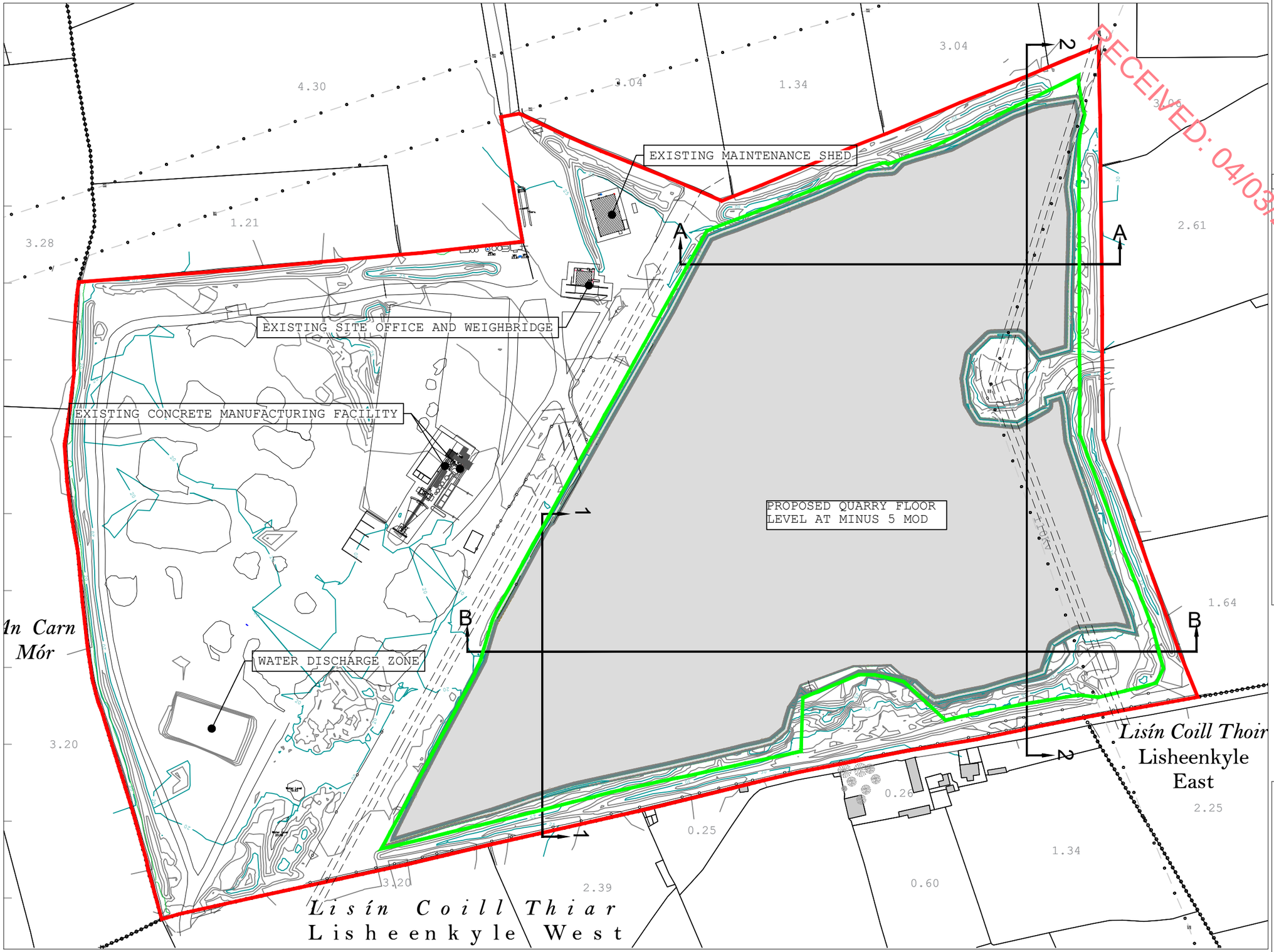
- Regular monitoring of tree health and growth rates.
- Implementation of protective measures against potential threats, such as grazing by wildlife.

FIGURES

Figure 3.1: Proposed Site Layout

Figure 3.2: Cross Sections

72.01.PLANNING DRAWING 5 FINAL.dwg



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Metres 1:2500

NOTES

Extract from Ordnance Survey 25 Inch Mapping - Map Sheets: 3348; 3348-B

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TOPOGRAPHICAL SURVEY CARRIED OUT BY CONTROL SURVEYS JANUARY 2025

LEGEND

APPLICATION AREA

CROSS SECTION LOCATION REFER TO FIGURE 3.2

PROPOSED QUARRY EXTRACTION AREA

N

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COSHLA QUARRIES LTD.

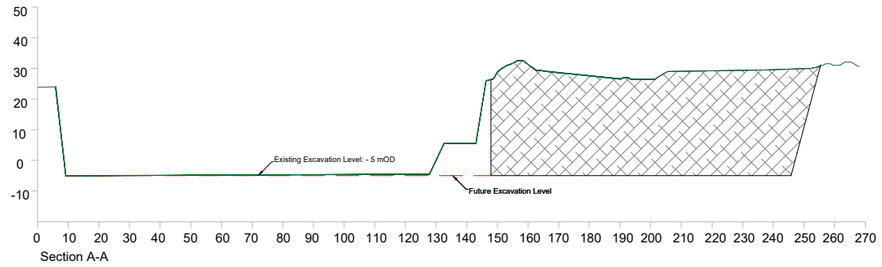
CONTINUATION OF USE & EXTENSION
COSHLA QUARRY, BARRETTSPARK
ATHENRY CO. GALWAY

PROPOSED SITE LAYOUT

FIGURE 3.1

Scale 1:2500 @ A3

Date FEBRUARY 2025



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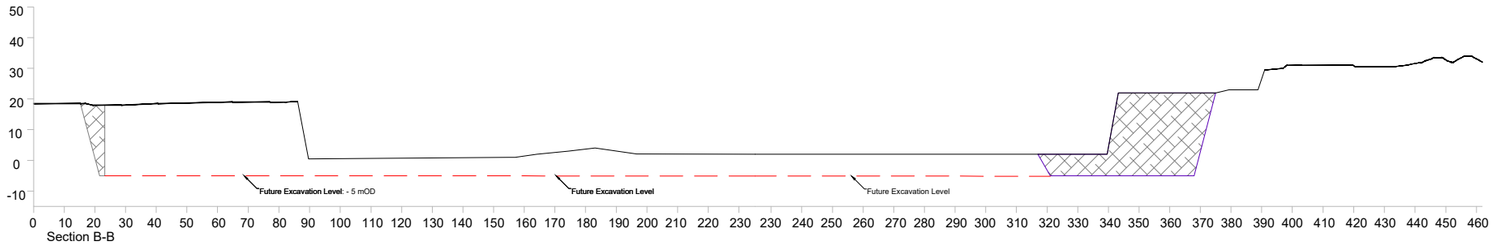
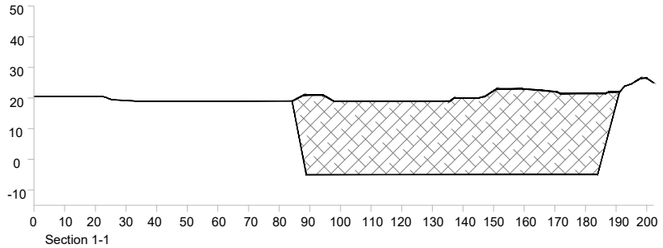
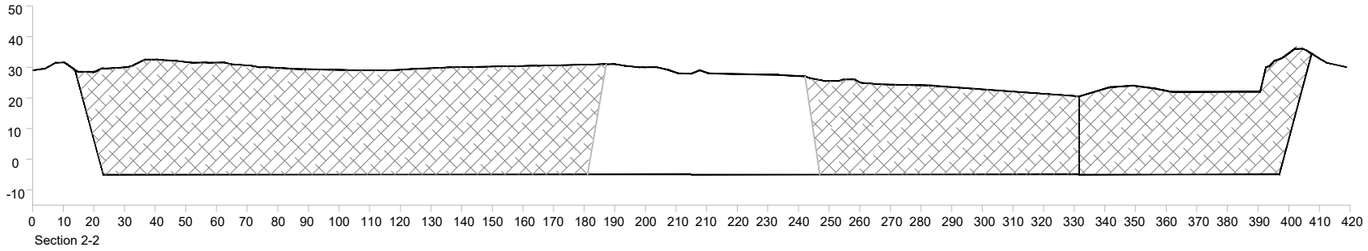


Section B-B



Section 1-1



Section 2-2

NOTES

REFER TO FIGURES 1.3 & 3.1 FOR CROSS SECTION LOCATION

LEGEND

N

0 20 40 60 80m 120 160 200

Metres 1:2000

QUARRY CONSULTING
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COSHLA QUARRIES LTD.

CONTINUATION OF USE & EXTENSION
COSHLA QUARRY, BARRETTSPARK
ATHENRY, CO. GALWAY

CROSS SECTIONS

FIGURE 3.2

Scale 1:2,000 @ A3

Date FEBRUARY 2025

APPENDICES

Appendix 2.1: Site Restoration Plan

QUARRY CONSULTING

Site Restoration Plan

PROPOSED RESTORATION OF AN EXISTING LIMESTONE QUARRY AT BARRETTSPARK, ATHENRY, CO. GALWAY

CLIENT NAME: COSHLA QUARRIES LTD.

REFERENCE: 72.01

FEBRUARY 2025

Contents

1. Introduction

Background

1.1. The Site Restoration Plan provides detailed guidance on implementing measures to protect, maintain, and enhance habitats and species populations at the existing limestone quarry and concrete manufacturing facility at Barrettspark, Athenry, Co. Galway. It should be read in conjunction with planning drawing 6 and accompanies the Environmental Impact Assessment Report and planning application for the continued operation and proposed extension of the limestone quarry.

1.2. The plan proposes allowing a water body to be created in the quarry void and facilitating natural revegetation in remaining areas. Additionally, native tree and shrub species will be planted on embankments and around the quarry void.

1.3. The restoration plan is designed to complement adjacent land uses and reduce the visual impact of the quarry after extraction activities cease. It also supports natural vegetation regeneration to integrate the site into the surrounding landscape.

1.4. This plan aligns with the objectives of the Galway County Development Plan, particularly in promoting sustainable land use and enhancing biodiversity.

Guidance

1.5. The restoration plan has been developed with reference to the following documents:

- GCCA Sustainability Guidelines for Quarry Rehabilitation and Biodiversity Management (2020).
- Environmental Management in the Extractive Industry (Non-Scheduled Minerals) (2006).
- Quarries and Ancillary Activities Guidelines for Planning Authorities (2004).
- HSA - Safety, Health and Welfare at Work (Quarries) Regulations (2008).
- The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2020).
- National Parks and Wildlife Service (NPWS) and Irish Concrete Federation (ICF). (2010). **Wildlife, Habitats and the Extractive Industry: Guidelines for the Protection of Biodiversity within the Extractive Industry**. Notice Nature Campaign. Available at: https://www.noticenature.ie/wp-content/uploads/2016/05/Notice-Nature-quarry-brochure-web_1.pdf

Legislation

1.6. This Site Restoration and Protection Plan specifies measures to ensure that works remain legally complaint:

- Wildlife Act 1976.
- Wildlife (Amendment) Act 2000.
- Flora (Protection) Order 2022.

Planning Policy

1.7. The National Development Plan 2021-2030 sets out the infrastructure and investment priorities that underpin the implementation of the National Planning Framework. The National Development Plan details the main investment projects, programmes and priorities in Ireland during the lifetime of the Plan.

1.8. The National Planning Framework contains a set of national objectives and key principles as a framework to guide development and investment by empowering each region to lead in the sustainable planning and development of their communities.

1.9. The Regional Spatial and Economic Strategy 2020-2032 sets out the long-term spatial planning strategy for the Northern and Western Region, covering the counties of Cavan, Donegal, Galway, Leitrim, Mayo, Monaghan, Roscommon and Sligo.

1.10. Planning policy at the local level is provided by the Galway County Development Plan 2022-2028 adopted on 28th September 2022. The Galway County Development Plan contains a number of policies relevant to biodiversity and the site are shown below:

- NHB 5: Ecological Connectivity and Corridors

'Support the protection and enhancement of biodiversity and ecological connectivity in non-designated sites, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife areas where these form part of the ecological network and/or may be considered as ecological corridors in the context of Article 10 of the Habitats Directive.'

- NHB 7: Mitigation Measures

'Require mitigating measures in certain cases where it is evident that biodiversity is likely to be affected. These measures may, in association with other specified requirements, include establishment of wildlife areas/corridors/parks, hedgerow, tree planting, wildflower meadows/marshes and other areas. With regard to residential development, in certain cases, these measures may be carried out in conjunction with the provision of open space and/or play areas.'

- WR1: Water Resources

'Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans.'

- IS 2: Invasive Species Management Plan

'Ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are currently or were previously present, an invasive species management plan will be required. A landscaping plan will be required for developments near water bodies and such plans must not include alien invasive species.'

- TWHS 1: Trees, Hedgerows, Natural Boundaries and Stone Walls

'Protect and seek to retain important trees, tree clusters and tree boundaries, ancient woodland, natural boundaries including stonewalls, existing hedgerows particularly species rich roadside and townland boundary hedgerows, where possible and replace with a boundary type similar to the existing boundary. Ensure that new development proposals take cognisance of significant trees/tree stands and that all planting schemes developed are suitable for the specific site and use suitable native variety of trees of Irish provenance and hedgerows of native species. Seek Tree Management Plans to ensure that trees are adequately protected during development and incorporated into the design of new developments.'

Existing Environment

2.1 A detailed description of the overall site is provided in Chapter 3 of the Environmental Impact Assessment Report (EIAR). However, a summary of the key information is outlined below:

2.2 The project site covers approximately 27.5 hectares within the townland of Barrettspark, located approx. 7 km west of Athenry, Co. Galway. The site encompasses an operational quarry with associated infrastructure, including:

- The existing operations involve the extraction of limestone through blasting techniques, followed by processing (crushing and screening) of the fragmented rock to produce construction aggregates. Manufacturing activities on-site include a concrete plant producing ready-mix and concrete blocks.
- Ancillary infrastructure includes an office, weighbridge, canteen, maintenance shed, toilets, and a wheel wash.

2.3 All areas within the proposed extension area fall within the same landholding boundary.

2.4 The current state of the site includes:

- Quarry Void: A large excavation with exposed rock faces, minimal vegetation, and steep slopes.
- Area of Water: A quarry sump located in the western part of the quarry extraction area.
- Bare Ground and Exposed Rock: Extensive areas of bare rock and soil with limited natural recolonisation.
- Perimeter Planted Screening Berms: Existing berms around the quarry boundary, planted to screen the site from visual impact and reduce noise and dust.
- Site Infrastructure: Includes a concrete manufacturing facility, crushing and screening plants, office, weighbridge, wheel wash, canteen, maintenance shed and associated facilities.

Ecology

2.5 Habitats present in the quarry area were identified with reference to Fossitt, 2000 and comprise a mix of:

- Active Quarries and Mines (ED4): Areas of ongoing quarrying activity with exposed rock and soil.
- Improved Agricultural Grassland (GA1): Found around the site perimeter.
- Dry Meadows and Grassy Verges (GS2): Limited areas along quarry edges and access routes.
- Spoil and Bare Ground (ED2): Areas of loose, unconsolidated material and recolonising bare ground.
- Buildings and Artificial Surfaces (BL3): Includes infrastructure such as the concrete plant, offices, and access roads.

2.6 The majority of habitats present on-site are of low conservation value. However, a small area along the southern boundary of the proposed extraction area has been identified as a peregrine falcon nesting site and will be left undisturbed (refer to EIAR Chapter 6: Biodiversity).

2.7 Upon cessation of quarrying activities, the site is expected to develop new habitats of increased ecological value. A water body will be created in the Quarry void or areas will revegetate, creating

features such as cliffs, pools, grassed berms, and spoil heaps. These habitats will support biodiversity and provide ecological niches not previously present in the area.

Species

2.8 The application site is located in the Ordnance Survey National Grid 1km square M4228[1]. The following protected species were identified within the 1km squares:

- Eurasian Badger (Meles meles)
- West European Hedgehog (Erinaceus europaeus)

Proposed Site Restoration Plan

3.1 The restoration plan focuses on incorporating biodiversity enhancements and habitat creation (see planning drawing 6). The objectives of the restoration plan include:

- Implementation of measures to protect and enhance biodiversity on-site, including the planting of berms and other areas of the site with tree and shrub species detailed in Table 1 below.
- Identification of measures to ensure public safety during the restoration process, such as the installation of appropriate fencing and the provision of clear signage around the site and at its entrance.
- In addition to natural revegetation, a water body will be created in the quarry void (refer to EIAR Chapter 8: Water).

3.2 The native trees and shrubs listed in table 1 below will be planted along existing perimeter berms, in areas surrounding the quarry void and in the central part of the western application site area (refer to Planning Drawing 6).

Table 1: Planting schedule for berms and areas around quarry void.

Species	Percentage Mix	Height at Planting
Crataegus monogyna (Hawthorn)	10%	90-120cm
Corylus avellana (Hazel)	10%	90-120cm
Betula pendula (Birch)	10%	90-120cm
Ilex aquifolium (Holly)	10%	90-120cm
Betula pubescens (Downy Birch)	10%	90-120cm
Prunus spinosa (Blackthorn)	5%	60-90cm
Rosa canina (Dog Rose)	10%	90-120cm
Salix caprea (Goat Willow)	5%	90-120cm
Sorbus aucuparia (Rowan)	10%	90-120cm
Viburnum opulus (Guelder Rose)	5%	90-120cm
Pinus sylvestris (Scots Pine)	5%	90-120cm
Alnus glutinosa (Alder)	10%	60-90cm

[1] https://maps.biodiversityireland.ie/Map

Additional Planting of Berms

3.3 The outer face of these berms will be planted with native Irish hedgerow species and trees (see table 2), in accordance with the biodiversity objectives outlined in Chapter 10 of the CDP, promoting natural recolonisation and enhancing the visual and ecological value of the area.

Natural Recolonisation:

3.4 The quarry area not including the quarry void will be let naturally recolonise. This will improve the local biodiversity and landscape character. By allowing natural processes to take over, this encourages the growth of wildflowers, shrubs, and other native plant species, contributing to the restoration of the area's ecological integrity.

3.5 It is not expected that additional soil will need to be imported to supplement the site-won overburden material. However, if necessary, any imported soil will be clean, inert, and sourced from a reliable and reputable provider. The soil will be chemically suitable and free of invasive weed propagules.

Environmental Benefits

3.6 The establishment native species aligns with the CDP's emphasis on biodiversity enhancement and ecological corridors. Benefits include:

- **Habitat creation**: The woodland will provide habitat for a range of species, supporting local wildlife and enhancing biodiversity.
- **Carbon sequestration**: Trees will contribute to long-term carbon sequestration, helping to mitigate climate change impacts.
- **Soil stability**: Root systems will help bind soil, reducing erosion risks on the regraded area.
- **Pollinator support**: The selected species will contribute to pollinator networks, particularly benefiting bees and other insects.
- **Aesthetic value**: The woodland will enhance the visual landscape in the long term.

Alignment with CDP

3.7 The native planting is in alignment with the objectives of the Galway County Development Plan (CDP). This will enhance local biodiversity, promote ecological corridors, and contribute positively to the landscape's character.

Rehabilitation and Landscape Integration

3.8 The restoration plan will follow best practices for extractive industry rehabilitation, with phased reinstatement ensuring the site is restored to its original character. The planting of native trees and hedgerow species will be integral to this process, in line with CDP objectives related to landscape preservation and biodiversity enhancement.

Mitigation Measures During Restoration

3.9 A range of control measures has been developed and integrated into the restoration phase of the proposed works to prevent the introduction and spread of invasive alien plant species. The following measures address potential impacts during the restoration activities:

- Good site hygiene practices will be implemented during restoration to prevent the introduction and spread of invasive alien species, such as Japanese knotweed and Himalayan balsam. Vehicles will pass through the wheel wash before leaving the site to minimise the risk of contamination.
- All plant and equipment used on-site will be washed prior to arrival to ensure no invasive species are inadvertently introduced.

- Any infill material required will be sourced from a reputable supplier who has verified the absence of invasive alien species through screening.
- In the unlikely event that, invasive species are introduced despite these precautions, they will be managed in accordance with the guidelines outlined in The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2020).

Planting and Aftercare

3.10 The site will be planted in the initial phase of restoration, with careful consideration given to spacing and species diversity to ensure a resilient and sustainable ecosystem. Aftercare will include:

- Regular monitoring of tree health and growth rates.
- Implementation of protective measures against potential threats, such as grazing by wildlife.

Measures to Ensure Public Safety

3.11 Prior to restoration, all plant and equipment will be removed from the site.

3.12 Existing fencing and warning signage will be retained, and stock-proof fencing with appropriate signage will be installed in areas where it is not already in place prior to the commencement of restoration. These measures aim to prevent public access to the application site and ensure public safety.

Conclusion

4.1 The Site Restoration Plan for the existing limestone quarry at Barrettspark, Athenry, Co.Galway, outlines a sustainable approach to restoring and enhancing the environment while ensuring public safety. Key measures include natural revegetation, creation of a water body within the quarry void, and planting native species to create valuable habitats and improve biodiversity.

4.2 Aligned with the Galway County Development Plan, the plan uses practical actions to prevent invasive species, enhance ecological connectivity, and blend the site into the surrounding landscape. With ongoing monitoring and aftercare, the plan ensures a successful transition to a diverse and sustainable post-quarrying environment.