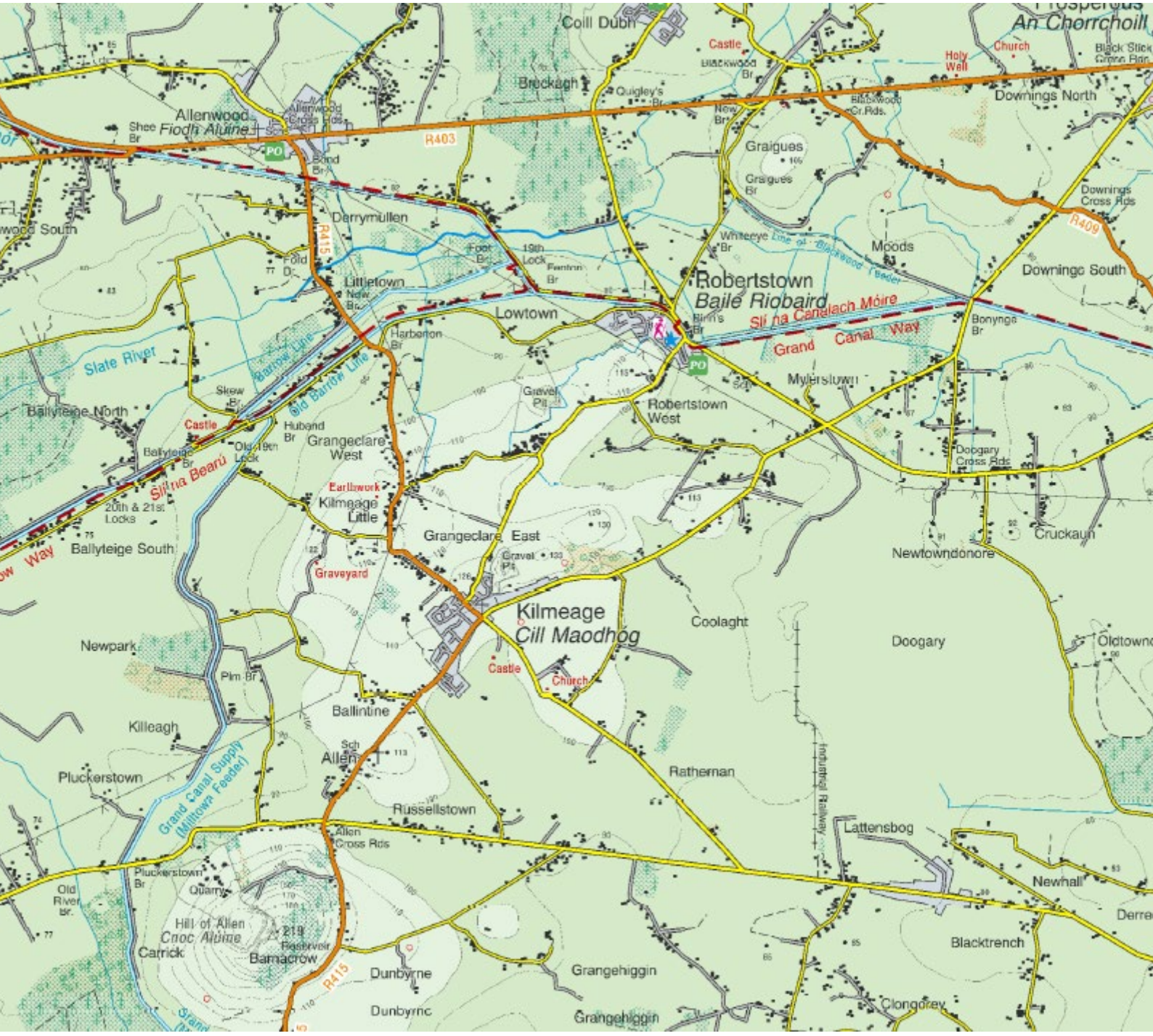
NON-TECHNICAL SUMMARY



QUARRY CONSULTING

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NON-TECHNICAL SUMMARY

Introduction

1.1 This document presents a Non-Technical Summary of the Environmental Impact Assessment Report (EIAR) that has been prepared in relation to the proposed development of a sand & gravel pit and inert waste facility at Coolaght, Kilmeague, Co. Kildare.

1.2 Key areas of information presented within this EIAR concern the nature and extent of the Proposed Development, the character of the receiving environment and likely interactions (cumulative impacts) between the two that could result in significant environmental impacts. Information presented on the receiving environment identifies the intrinsic value and importance of potential impact receptors.

1.3 In addition to the Environmental Impact Assessment Report, a number of stand alone assessment reports are included with the Planning Application, including:

- Planning Statement;
- Flood Risk Assessment;
- Appropriate Assessment: Stage 1 Screening Report.

The Applicant

1.4 The applicant, Mr Joseph Logan, is situated in County Kildare. The applicant intends to set up a sand and gravel pit at this site, supplying vital resources for the local construction industries.

1.5 In addition to the sand and gravel operation, the applicant plans to leverage the proposed facility to provide a soil recovery facility, making it a dual-purpose site. The company will accept soil and stones for import from external sources. This material will be washed (if required), processed, and sorted to be reused in various applications such as construction fill, topsoil, and sub-base materials, supporting the circular economy and reducing the need for virgin aggregate materials.

1.6 Additionally, the imported soil and stones will play a crucial role in site restoration efforts. Once sand and gravel extraction is complete in a particular area of the pit, the imported material will be used to fill and restore the area. This strategy not only ensures a steady supply of restorative materials but also facilitates the progressive rehabilitation of the site.

1.7 Through these innovative practices, Joseph Logan aspires to become a model for sustainable sand and gravel operations. With an emphasis on recovery and restoration, the applicant strives to balance its economic activities with its environmental responsibilities.

1.8 Upon securing the necessary planning approvals and licences / permits, Joseph Logan will commence operations. The company is committed to executing its business activities responsibly, focusing on sustainability, and fostering positive relationships with the local community and stakeholders.

The Application Site

1.9 The site is located in the townland of Coolaght, Kilmeague, Co. Kildare, situated approximately 300m from the nearest point of Kilmeague (which comprises ribbon development on the northeast side of the village). The site is 6.7km north of Newbridge and 9.9km northwest of Naas (see Planning Drawing 1).

1.10 Access to the site is provided from the L7081 local road, which joins the R415 at a t-junction in the centre of the village of Kilmeague, 1.3km southwest of the site. In the vicinity of the site, the L7081 comprises a single carriageway road with an 80km/hr speed limit.

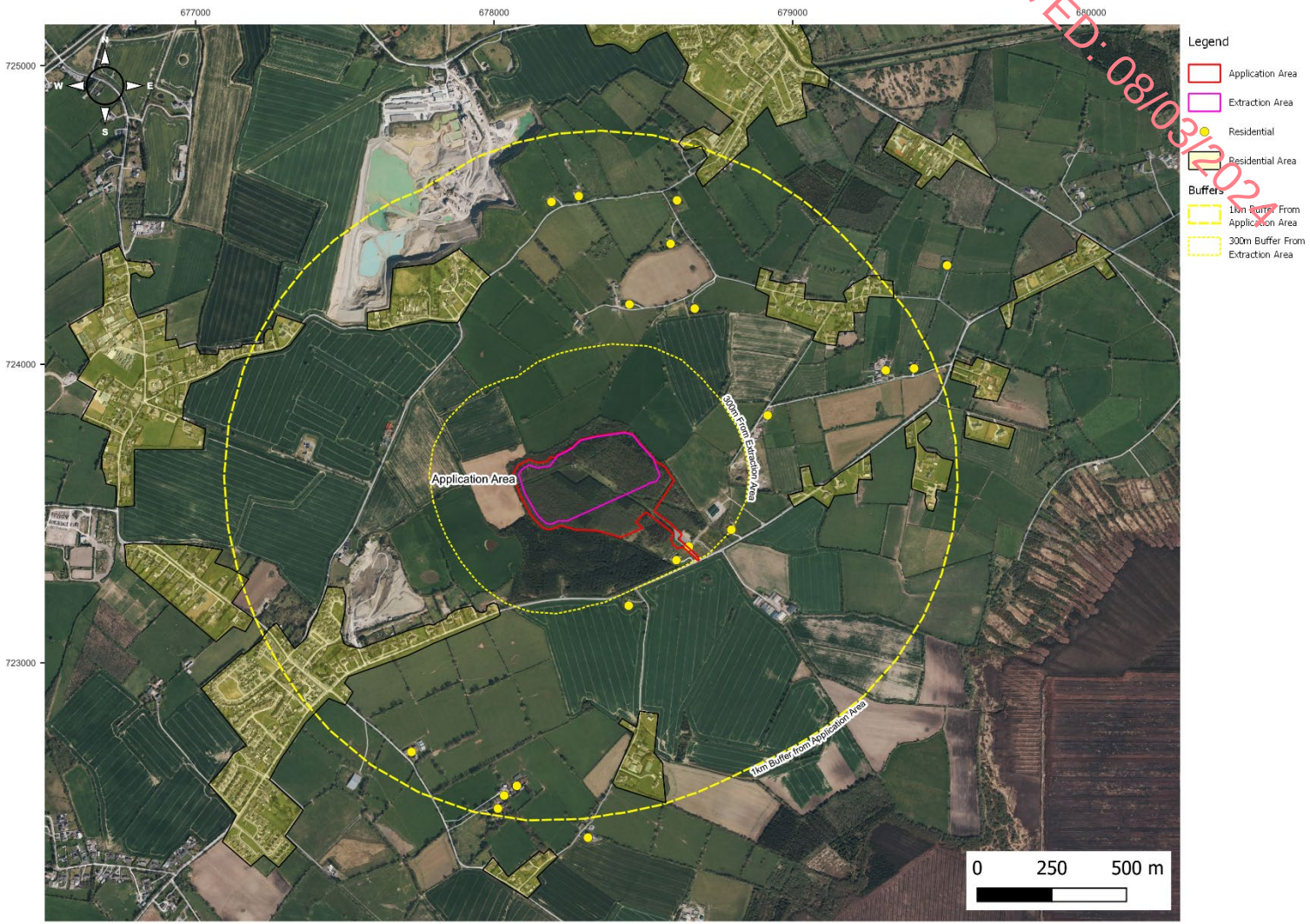
1.11 The surrounding landscape is rural in character, consisting of a mix of pasture and arable land, with extensive areas of low grade agricultural land and bog in the wider area. The latter has predominately been cutover. The wider area also includes several examples of quarries and sand and gravel pits, the nearest of which is situated 440m west of the site at Kilmeague village – refer to Figure NTS 1.

1.12 Residences within the general area are typically centred around the villages of Killmeague, Robertstown and Allen, though there are also examples of one-off rural houses and ribbon development along the local road network. The nearest properties to the site are situated on the southern site boundary. The nearest property to the north is situated approximately 400m distant in Grangeclare East. The site is physically and visually separated from the properties in Kilmeague village by a wooded area immediately to the west.

1.13 There are no water features in the vicinity of the site. The nearest water course is the Grand Canal, which flows in an east-west direction through Robertsown, approximately 1.3km northeast of the site. The River Liffey flows through Newbridge and is fed by a number of streams to the south of the application site, the closest of which is IE_EA_09L011050, which is approximately 1.7km to the southwest.

1.14 The site itself is broadly triangular in shape comprised of mixed (predominately deciduous) woodland that was planted between 2002 and 2004. Levels within the site rise from approximately 100m OD (Ordnance Datum) in the south to 130m OD in the north-west. Beyond the site the landscape comprises a line of low hills that form part of the Chair of Kildare which interrupt the continuity of the Kildare plains. High points in the surrounding landscape include 219m OD at the Hill of Allen, 223m OD at Grange Hill and 233m OD at Dunmurry Hill to the southwest of the application site.

Figure NTS 1: Site Location



The Proposed Development

Introduction

1.15 The proposed development will involve:

- The removal of woodland, vegetation and overlying soils & subsoils;
- the extraction of sand and gravel on a phased basis from an area of c. 8.65 ha to a final floor level at 95 mOD (Ordnance Datum);
- the infilling of the lands using inert waste on a phased basis following the extraction of sand and gravel;
- the restoration of the lands back to original ground level and the establishment of native woodland planting;
- all related ancillary development and associated site works including processing (crushing, screening and washing) and stockpiling of materials; installation of infrastructure for the management of water on site; provision of landscaped screening berms and all other related activities;
- Provision of a site office, toilet (portaloo), canteen, weighbridge, wheelwash and site entrance.

1.16 The proposed development is within an overall application area of c. 13.2 hectares and is for a total period of 34 years (the sand and gravel extraction operational period is for 20 years and the importation of materials for restoration is for a further 14 years).

1.17 The Proposed Development will include for the importation of ca. 2,000,000 m^3 (or ca. 3.2 million tonnes) of inert soil and stone material to restore ground gradients to similar levels prior to sand and gravel extraction i.e. current ground levels.

Restoration (Reinstatement to Nature Conservation Habitat Areas)

1.18 Upon the cessation of extraction operations, it is proposed to restore ground gradients to similar levels prior to sand and gravel extraction i.e. current ground levels. The restored land will provide natural habitat land use, with ecological benefit provided through woodland planting of native species – refer to Figure NTS 3.

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

Nature and Quantity of Material to be Extracted / Infilled

1.20 An outline of the proposed extraction plan and the final ground level contours is shown in Figure NTS 2.

Extraction Operations

1.21 The total recoverable reserve of sand and gravel from within the proposed extraction area assessed at c. 4 million tonnes.

Infilling Operations

Capacity and Lifespan

1.22 The only material requirements in respect of the proposed restoration scheme are the inert soil, stone and rock to be used in filling and restoring the application site.

1.23 The Proposed Development will include for the importation of ca. 2,000,000 m^3 (or ca. 3.2 million tonnes) of inert soil and stone material to restore ground gradients to similar levels prior to sand and gravel extraction i.e. current ground levels.

Duration of the Proposed Development

1.24 A planning permission duration of 20 years is sought for the extraction and processing period and a further 14 years to complete final restoration of the site

Method of Extraction

1.25 A wheeled front-end loader or tracked excavator will be used to excavate the previously stripped sand and gravel deposit. Sand and gravel material will be transported to the proposed processing plant (crushing, screening and washing) using a dump truck.

Stability of the Pit

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

Operating Hours

1.27 The quarry operates from 07:00 to 18:00 Monday to Saturday for processing. Deliveries and loading of HGVs can occur from 07:00 to 19:00, but will be limited after 18:00. No operations will be carried out on Sundays or public holidays.

Employment

1.28 The proposed development will provide continued employment of up to 10 no. people directly on-site, in addition to a number of indirect employees such as crushing contractors, HGV drivers, maintenance contractors, local suppliers, etc.

1.29 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 Kildare 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 Access

1.30 Access to the proposed development site shall be at an existing access onto the L7081 Local Road. Trucks will exit the site at the same entrance. Improvements to the existing access are proposed as part of this application.

1.31 All trucks leaving the development will pass through a proposed new wheelwash. The access road from the wheelwash to the county road will be surfaced to prevent carryout of material onto the public road.

1.32 In determining the daily traffic volumes associated with the development an average of 54 loads per day from the site has been calculated.

Site Security

1.33 The perimeter of the entire working area will be secured by a combination of the existing hedgerows, screening berms and post & wire fences. Signs will also be erected around the pit excavation and site boundaries showing 'WARNING DEEP EXCAVATION', or similar.

Site Roads, Parking and Hardstanding Areas

1.34 HGV's will access the site from the existing site entrance and travel north over a section of paved internal roadway within the application site.

1.35 Adequate car parking provision for employees and visitors will be provided at the proposed site office as indicated in Figure NTS 2.

Weighbridge

1.36 In order to track and record the amount of material entering / exiting the application site, all HGV traffic will be directed across a proposed weighbridge located adjacent to the weighbridge office, as indicated on the site layout plan in Figure NTS 2.

Wheelwash

1.37 In order to prevent transport of clay and dust onto the public road network, a wheelwash will be installed along the egress road leading out of the application site. All HGV and articulated trucks exiting the proposed facility will be required to pass through the proposed wheelwash facility, the location of which is indicated on the site layout plan in Figure NTS 2.

Utilities & Welfare Facilities

1.38 It is envisaged that site based staff will be contactable by mobile phone only and that email and broadband connections to the site office will be provided via a mobile (4G) network.

1.39 Given the lack of combustible waste materials at this site, it is considered highly unlikely that a fire will break out during backfilling and recovery operations. A range of fire extinguishers (water, foam and CO_2) will be kept at the site office / staff welfare facilities to deal with any localised small-scale fires which could occur. Additional fire-fighting capacity can be provided by storing water in a mobile bowser on unsealed hardstand areas surrounding the site offices / facilities.

1.40 A water supply well will be installed. The requirement for water on the subject site relates mainly to dust suppression during processing activities and suppression of dust in the pit floor and access route by means of sprinklers and also a water bowser during dry weather. Water will also be required for the proposed washing plant and wheelwash

Offices and Ancillary Facilities

1.41 Proposed ancillary facilities at the site include a portacabin office / canteen, weighbridge, wheelwash and toilets (portaloo).

Water Management

1.42 During the extraction / filling operations, the working areas will be graded so as to ensure that surface water run-off falling over the development footprint falls to sumps at temporary low points and allowed to percolate to ground.

1.43 Due to the provision of the concrete plinth, wheel wash and associated paved area, it is proposed to install a drainage system associated with each of these features. The drainage systems will collect water and pass it through a fuel/oil interceptor before entering a soak pit facilitating natural infiltration.

Fuel Storage

1.44 A mobile tanker will be used for refuelling the mobile plant on the pit floor.

1.45 Oil and lubricants for plant and machinery will be stored on spill pallets in the proposed designated storage area on site.

1.46 The location and layout of the proposed hardstand area and hydrocarbon interceptor are shown on the site layout drawing in Figure NTS 2.

Processing methods, Machinery & Plant

1.47 Construction activities in relation to the sand pit will mainly relate to the clearance of woodland / vegetation in certain areas of the site. Construction stage plant will include a tracked excavator, wheelwash, lorry and chainsaw.

1.48 Machinery and plant to be used on site for extraction and infilling operations will include crushers and screeners, a washing plant, tracked excavators, bull dozers, front end loading shovels and dump trucks as described above. These machinery and plant will be retained on site to facilitate the proposed development.

Lighting

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

1.50 Lighting at the proposed entrance and within the application site will be designed to ensure the development will not be a source of light pollution to adjacent lands, property and the public road network.

1.51 The requirements of the Institution of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light (GN01:2021) in relation to the impact of lighting design on the adjoining lands, properties and the public road network will be taken into consideration when designing any proposed lighting for the site, including the entrance area.

Waste management

Extractive Waste Management

1.52 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 Kildare County Council.

General Waste Management

1.53 Only soil and stone waste carried by authorised waste collectors will be accepted at the proposed soil recovery facility under a strictly controlled approval and permitting system. It is envisaged that the majority of the HGV drivers will be employed by, or contracted to, authorised / approved hauliers.

1.54 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 possessing plants 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 is 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 will be removed from the site by a licensed waste contractor.

- Used Batteries – similarly all used batteries will be removed from site for collection and recycling by a licensed waste contractor in accordance with the Waste Management Regulations.
- Domestic Style Waste (Canteen Waste) – domestic waste generated at the offices and employee's facility will be collected by a licensed waste collection contractor.

Alternatives

1.55 An analysis of alternatives which have been considered for this proposed development in terms of the following:

- 'Do Nothing' Scenario;
- Alternative Sources;
- Alternative Locations;
- Alternative Designs / Layouts;
- Alternative Processes.

The 'Do Nothing' Scenario

1.56 The 'Do Nothing' scenario would result in the new sand and gravel pit not being commissioned. The 'Do Nothing' scenario would not enable the Applicant to create an essential supply of aggregate to the Irish market, or a suitable site for an inert waste facility.

1.57 The sand and gravel from the site will be used in concrete production and therefore will impact the supply of concrete in the region. There would no benefit in terms of additional employment in the region as the development will employ 10 no. people on site, in addition to several indirect employees such as crushing contractors, HGV drivers, maintenance contractors, local suppliers, etc.

1.58 The site which is subject to the application would remain as forested lands and thus unutilised at a time when the economy and construction industry are growing and demand for aggregates is increasing.

Alternative Sources

1.59 There are several alternatives to traditional sand and gravel pits for sourcing construction aggregates in Kildare.

1.60 While there are alternatives available, completely replacing aggregate quarries is not feasible or practical.

Alternative Locations

Site Selection

1.61 It is considered that the development of this site, subject to implementation of best environmental management practice and compliance with appropriate planning controls (i.e. planning conditions and recommended emission limit values for the sector) is acceptable in an overall planning context.

Alternative Designs / Layouts

1.62 Various design elements were considered to minimise visual and environmental impacts, including preserving woodland, creating buffer zones, and optimizing access roads.

Alternative Processes

1.63 The possibility of recycling imported waste material for secondary aggregate and exploring alternative processing methods like dry screening were considered but ultimately wet screening was chosen for consistency in product quality.

Summary of Environmental Effects

Population and Human Health

1.65 The site is within the Municipal District of Clane-Maynooth. The site is situated in the Clane Local Electoral Area (LEA) and within Kilmeague South Electoral Division.

1.66 The characteristics of the proposed development were considered and the changes occurring as a result of aspects of the construction and operation of the proposed development were identified. The effect of these impacts on and population and health outcomes (beneficial and adverse) were consequently identified and assessed.

1.67 The quarry forms part of an active, working landscape, in which agriculture, forestry and turf-cutting all form existing landuses. Several dwellings lie in the vicinity of the proposed sand and gravel pit site, the closest being two dwellings located approx. 250m from the proposed extraction area. There are approximately 3 dwellings within 300m of the proposed extraction / infill area. Several dwellings are situated along the L7081, three of which are located within 150m of the site entrance. Two dwellings are located approx. 400 m north of the extraction area. There are more dwellings located in the town of Kilmeague located approx. 1km from the proposed site.

1.68 The Data available from the CSO on property values is presented in terms of Eircode Routing Key areas. The proposed development is located within Eircode Routing Key W91: Naas. The CSO data for the year to December 2023 show that the median price of residential properties sold across the area is c.€400,000. The national median house price is €327,500.

1.69 The demographic information for the area has been sourced from the 2006 – 2022 census data, which is available from the Central Statistics Office. The information largely paints a picture of an area experiencing population increase, with an overall increase of 28.2% in the population within the study area since 2006. This increase is similar to the county figure (32.7% increase) and higher than the national figures (20.8% increase).

1.70 The age profile of people living in the area is similar to other parts of the state and reflects little out-migration playing a role in that trend Similarly, information from Central Statistics office (2020) indicates that the birth rate of 12.7 for the county is higher than the national rate of 11.4 and represents a drop compared to the 2012 rate for the county which was 15.8.

1.71 The potential adverse effects include those related to water, air, noise, landscape and traffic. Each of these matters, and associated management / mitigation measures, is addressed in the Environmental Impact Assessment Report (EIAR). The proposed development is not likely to have any significant effects on tourism / amenity assets, or on human health.

1.72 As outlined in 8 (water), 10 (air quality) and chapter 11 (noise), of this EIAR monitoring in relation to the proposed development will be undertaken in respect of water, air and noise to confirm that the proposed operations will operate within the recommended water, dust, noise limit values set out in best practice guidelines for the sector and conditions attached to planning permissions.

Biodiversity

1.73 Green and Blue Ecology conducted an Ecological Impact Assessment (EcIA)to inform the wider Environmental Impact Assessment (EIA) process and production of the Biodiversity Chapter of an Environmental Impact Assessment Report (EIAR) for the proposed development of a sand & gravel pit and soil recovery facility in the townland of Coolaght near Kilmeague, Co, Kildare.

1.74 The application site for the sand & gravel pit covers 13.2 hectares (ha) with a proposed extraction area of 8.65 ha that comprises predominantly of blocks of mixed plantation woodland approximately 20 years in age.

1.75 The application site is not subject to any statutory or non-statutory nature conservation designations. The closest designated site is the Grand Canal proposed Natural Heritage Area (pNHA) that lies 1.32 km north northeast of the application site.

1.76 The habitats currently present within the application area are of intrinsically low ecological and nature conservation value that are considered to be of Local value only. Based on the habitats present the site is unlikely to be important or critical for any particular species of or population given the availability of alternative habitats in the wider surrounding area.

1.77 No significant direct or indirect effects have been identified on any designated site from the proposed development of a sand & gravel pit and soil recovery facility.

1.78 The proposed development of a sand & gravel pit and soil recovery facility will result in the direct loss and damage to approximately 10.7ha habitats that occur at the site. This includes: <0.06 ha of *WN2 – Oak-ash-hazel woodland* habitat, and 217m of species-poor hedgerow both considered to be of Local (higher) value. Through the provision of compensation measures to provide some management to the retained hedgerows on the boundaries of the application site and supplementary planting of additional trees and shrubs on the screening berms the residual impact is assessed as not significant.

1.79 No significant direct or indirect significant effects have been identified on any individual or group of species from the proposed development of a sand & gravel pit and soil recovery facility.

1.80 The only statutory protected species with relevance to the proposed development of the sand & gravel pit and soil recovery facility are breeding birds. However, provided that appropriate mitigation strategies are put in place it will be possible for the proposed development to be carried out without the risk of breaching current wildlife legislation.

1.81 The only policy implications of the proposed development of a sand & gravel pit and soil recovery facility at Coolaght, in the absence of mitigation, enhancement and/or compensation, is loss of 217m of hedgerow which will be in contrary to BI O26 of the Kildare County Development Plan. However, through enhancement of retained hedgerows and consideration for the planting of trees and shrubs along sections of the screening berms it is considered that the proposed development will comply with the requirements of local planning policies relating to biodiversity

1.82 On completion of backfilling of the sand & gravel pit to original ground levels, the application site will be restored back to original ground levels of 100 – 130mAOD and native woodland that is likely to have a positive and beneficial effect on wildlife at the end of its operational life.

1.83 The residual impact of the proposed development of a sand & gravel pit and soil recovery facility at Coolaght is assessed as not significant.

Land Soils and Geology

1.84 This chapter assesses the likely and significant effects that the proposed development may have on land, soils and geology and sets out the mitigation measures proposed to avoid, reduce or offset any potential significant effects that are identified.

1.85 The proposed development site (the "site") is extensively covered in mixed woodland (predominately deciduous) and is bordered mainly by agricultural lands along with some forestry to the southwest.

1.86 The site is located on a local hill where the ground slopes away on all sides with the steepest slopes to the north and south. The top of the hill (130m OD) roughly aligns with the centre of the proposed extraction area/infill area (8.5ha).

1.87 Site investigations carried out at the site consisted of trial pitting and borehole drilling. Clean sand and gravel deposits with minor silty horizons was encountered in all 6 no. boreholes and trial pit. The thickness of sand and gravel deposits varied between 15.8m (@BH5 where the ground level is approximately 101m OD) and 46m (@BH6 where the ground level is at approximately 129m OD). The overburden is underlain by variations of mudstone and sandstone bedrock which were found to be strong and competent.

1.88 The site is not located within or adjacent to any designated site or geological heritage site. The closest geological heritage site is the Hill of Allen located 3km southwest of the site. The closest designated site to the proposed development site is the Grand Canal pNHA which is located ~1.7km to the north of the site. There is no potential to affect these listed sites from a land, soils and geology perspective.

1.89 The proposed development being applied for under this planning application includes for the concurrent extraction of sand and gravel along with the importing of inert soil material over an area of 8.65ha. There will be no sand and gravel extraction below either the level of bedrock or the groundwater level.

1.90 The proposed development will have a permanent effect on geology due to sand and gravel excavation, however this is seen as an acceptable and unavoidable consequence of the proposed development.

1.91 Storage and handling of hydrocarbons/chemicals will be carried out using best practice methods and will mitigate against soil and bedrock contamination throughout all phases of the proposed development. Proper sourcing of inert material/soil prior to transport to the site, pre-agreed source sites for inert material and regular load checks of incoming loads will ensure the importation of uncontaminated material.

1.92 The proposed development will result in the temporary loss of approximately 8.5ha of forestry/mixed woodland. The extraction will result in local topographic changes with the removal of sand and gravel deposits down to 95m OD from a maximum original ground level of 130m OD. There will be no effects on the lands adjoining the site.

1.93 Upon completion of the proposed extraction and infilling, a restoration plan will be implemented which will consist of ground levels being restored back close to original ground levels. The restored ground will be planted with a suitable mix of woodland planting.

1.94 An assessment of potential cumulative effects associated with the proposed development and other developments on land, soils and geology has been completed. The Land, Soils and Geology Assessment confirms there will be no significant cumulative effects on land, soil and geology as a result of the proposed development.

Water

1.95 This chapter assesses the likely significant effects that the proposed development may have on hydrology and hydrogeology and sets out the mitigation measures proposed to avoid, reduce or offset any potential significant effects that are identified.

1.96 In terms of regional hydrology, the proposed development site is located in the River Barrow surface water catchment.

1.97 Locally, the site is located in the Slate River Clare catchment. The Slate River flows in a westerly direction approximately 2.5km to the north of the site. There is no surface water connection/land drainage between the Slate River and the proposed development site.

1.98 The site is underlain by a Locally Important and Poor bedrock aquifers. The depth to groundwater level across the overall site varies from approximately 32m to 13.3m below ground level (mbgl). The groundwater level depth across the proposed extraction/infill area ranges from approximately 32mbgl on the west to 29.5mbgl on the east. The groundwater flow direction is measured to be easterly / northeasterly.

1.99 The proposed development will involve the extraction of sand and gravel deposits above the groundwater level. Water used for washing/processing and dust suppression and at the wheel wash will be sourced from the proposed on-site groundwater well. Aggregate wash water will be directed to a closed lagoon system for settlement of silt and water recycling. The lagoon will be topped up using the proposed on-site well. There are no proposed licenced discharges to either groundwater or surface water.

1.100 No significant effects to surface water (quality and flows) and groundwater (quality and quantity, and any local groundwater wells) will occur as a result of the proposed development as no discharges are proposed and groundwater abstraction volumes are relatively low. Nevertheless, the EIAR presents proven and effective mitigation measures to protect surface and groundwaters.

1.101 A hydrological assessment of potential impacts on local designated sites was undertaken. The closest potentially downgradient designated sites are Ballynafagh Lake SAC and Ballynafagh Bog SAC which are located approximately 5km to the northeast. The only pathway for potential contaminants from the proposed development site to reach these SACs is via groundwater baseflow followed by surface water flows. There are no drains or streams connecting the proposed development site to these SACs.

1.102 Following implementation of the appropriate mitigation measures as outlined in the EIAR no significant impacts on these designated sites will occur as a result of the proposed development.

1.103 A Water Framework Directive (WFD) Compliance Assessment has been completed for all waterbodies (surface water and groundwater bodies) with the potential to be impacted by the proposed development. With the implementation of the mitigation measures detailed in this EIAR there will be no change in the WFD status of the underlying groundwater body or downstream surface waterbodies as a result of the proposed development. The proposed development has been found to be fully compliant with the WFD and will not prevent any waterbody from achieving its WFD objectives.

1.104 Due to the lack of any mapped flood zones or historic flooding within the site, the infilling of the site back to the original topography and the proposed SuDS drainage measures, there is no risk of increased flood risk.

1.105 An assessment of potential cumulative effects associated with the proposed development and other developments on the hydrological and hydrogeological environment has been completed. Firstly, it needs to be stated that potential for the proposed development to contribute to cumulative effects is very low due to the absence of any discharges, the lack of surface water flowpaths/land drainage between the proposed development site and downstream river waterbodies (i.e. Slate River). Also, Due to the localised groundwater flow

pattern at the proposed development site, which is towards the Slate River, groundwater cumulative effects are also unlikely.

1.106 Nevertheless, with the implementation of the mitigation measures detailed in this EIAR, the cumulative assessment found that there will be no significant effects on the hydrological and hydrogeological environments.

Climate

1.107 Ireland has a temperate maritime climate characterized by mild temperatures, high levels of precipitation, and relatively consistent weather patterns influenced by the North Atlantic Drift, an extension of the Gulf Stream. The climate is typified by its variability, with frequent changes in weather due to the influence of various atmospheric systems and the surrounding oceanic conditions. Winters are generally mild, and summers are cool, with average temperatures ranging from around 4°C in winter to 15°C in summer.

1.108 The climate data recorded within the region of Coolaght has been sourced from Lullymore Nature weather station. The proposed development is not of sufficient scale to have any direct or indirect impacts on the regional or local climatic conditions.

1.109 Many developments have the potential to emit greenhouse gas (GHG) emissions to the atmosphere during the construction, operational and decommissioning phases of the development. GHG emissions from the proposed development at Coolaght have been calculated using the Transport Infrastructure Ireland Carbon Tool. A detailed carbon footprint assessment report can be found in EIAR: Appendix 9.B. Measures will be implemented to assess and/or monitor greenhouse gas emissions and to reduce these wherever practically possible.

1.110 The carbon footprint assessment shows that the proposed development will not make a significant contribution to global carbon concentrations.

1.111 A climate change risk assessment was carried out to assess how the proposed development is vulnerable to climate change.

1.112 The proposed development is at low risk to increased weather events associated with climate change as detailed in the climate change risk assessment. The impacts of weather events on the proposed development after mitigation measures are implemented will be slight or negligible.

Air Quality

1.113 An Air Quality impact assessment was carried out aimed at assessing and documenting the potential impacts on air quality that could arise from the proposed development at Coolaght. Within the context of a sand & gravel pit / inert waste facility, such impacts are related to processes like extraction, crushing, and transport of the extracted / deposited material.

1.114 The assessment was designed to comprehensively present the current baseline conditions, identify potential air pollutant sources, estimate the likely magnitude and significance of these impacts, and propose suitable mitigation measures. The key objective was to ensure the proposed project adheres to all relevant air quality regulations and standards, thereby protecting the health of the local population and the overall environmental integrity.

1.115 It has been found that deposited dust does not generally travel beyond 250 m (IAQM, Appendix 2, 2016), therefore all receptors within 250 m of the site boundary were considered. The guidance states that it is commonly accepted that the greatest impacts from particulates will occur within 100 m of the source.

1.116 There are no receptors within 250 metres of the proposed sand and gravel extraction / waste deposition area. Within a 400-meter radius of the proposed development, there are approximately 8 residences.

1.117 The risk of impact from dust emissions associated with the proposed development (without any mitigation measures in place) varies from moderate adverse effect (R1 and 3), slight adverse effect (R5 and 7) and negligible effect (R2,4, and 6).

1.118 Note that this does not take into account implementation of mitigation measures within the proposed development that include provision of perimeter screening berms, landscape planting, dust suppression measures etc. (outlined in the Mitigation Measures section below).

1.119 It is concluded that there would be no significant adverse air quality effects for both human and ecological receptors.

Noise and Vibration

1.120 An environmental noise survey has been carried out to establish existing levels of environmental noise in the vicinity of noise sensitive receivers surrounding the Kilmeague Sand and Gravel Pit site.

1.121 Appropriate noise and vibration criteria for the proposed development have been identify in accordance with the following documents,

- Environmental Protection Agency (EPA) publication, Environmental Management in the Extractive Industry (Non-Scheduled Activities, 2006); and
- Department of Environment, Quarries and Ancillary Activities, Guidelines for Planning Authorities 2004.

1.122 The construction phase will generate degree of noise but at levels well within the criteria and significant noise effects are not expected.

1.123 The operational impacts associated with the proposed development are considered not significant and noise due to the proposed extraction and infilling activities at Kilmeague Sand and Gravel Pit are expected to be below the noise and vibration emission limit values (ELVs).

1.124 The assessment has concluded that with the implementation of the mitigation measures set out the EIAR, noise and vibration levels associated with the proposed extraction and infilling activities will be below the noise limit value at the nearest noise sensitive locations. The implementation of best practice noise and vibration mitigation measures will form part of site management practices to minimise the potential for any significant effects at the nearest noise sensitive locations.

1.125 Monitoring of noise and vibration emissions will be carried out in accordance with the relevant planning conditions for development to ensure compliance with operational noise and vibration ELV's.

Visual and Landscape

1.126 A landscape and visual impact assessment (LVIA) of the proposed development at Coolaght townland has been completed in accordance with accepted guidance.

1.127 In terms of landscape impacts, there will be some noticeable physical impacts to landform and land cover at a site scale, but in the context of the wider setting, these will be minor and unlikely to be noticed beyond the immediate context of the site.

1.128 The proposed development is considered to have limited potential to materially impact the local landscape character as it is heavily screened by the dense vegetation surrounding the

site. Furthermore, two existing sand pits occur within the study area, with one situated c. 450m west of the site and the other situated c. 800m north.

1.129 Overall, it is considered that the landscape of the study area is principally that of a productive, yet partially settled rural landscape. There is some degree of scenic amenity in the area, as highlighted by is 'special' landscape sensitivity classification in the Kildare CDP, however there is no particular sense of scenery in the immediate vicinity of the site, or in the direction of the site. On balance, the significance of landscape impact is deemed to be Moderate, within the immediate vicinity of the site and reducing to slight and imperceptible at greater distances.

1.130 Visual impacts were assessed at 8 No. viewpoints which represent different receptors, viewing distances and viewing angles within the study area. Visibility of the proposed development is limited to fleeting glimpses of the proposed sand pit face, from local roads afforded through narrow gaps in tall dense vegetation. The significance of visual impact ranges between 'Moderate-slight' and 'Imperceptible' with only two nearby viewpoint location registering the former.

1.131 VP2 and VP3 will experience a moderate-slight significance of visual impact. and this principally relates to the subtle dip in the skyline ridge profile relative to its slightly more crested present day profile. In this regard, it is important to reiterate that this is not a prominent hill, hillock or ridge, but instead a low, elongated and forested ridge where such change as proposed is subtle and without critical bearing on visual amenity.

1.132 In most instances, the only visual changes are to profile of the skyline ridge and the vegetation on site, and the perceived elevation of the ridge, however these changes are usually subtle where visible.

1.133 Given the site's location, and successive layers of vegetation in the local and wider landscape, the development is of modest consequence in terms of effects to landscape character and views. In this regard it is considered that this is an appropriately sited development, that can be readily assimilated into this landscape with little consequence to landscape character, or views.

1.134 Based on the landscape and visual impact judgements provided throughout this LVIA, the proposed development and associated site works are not considered to give rise to any significant landscape / visual or cumulative impacts.

Traffic

1.135 Link capacity analysis was carried out on the L7081, and it was determined that the link road will continue to operate within capacity for each of the assessment years: 2024, 2029 and 2039.

1.136 The results of the junction capacity analysis indicates that all junctions will operate within capacity for each of the assessment years: 2024, 2029, and 2039.

1.137 As both link and junction capacity have determined that the road network will continue to operate within capacity, it can be concluded that the development will have an imperceptible impact on the local road network.

1.138 Sightlines have been assessed against Section 5.6.3 of TII Publications document DN-GEO-03060, which requires 160m of unobstructed visibility (where the design speed is 85kph) at a point 3.0m back from the edge of the carriageway. Visibility in both directions was found to meet, and exceed, the requirements of TII Publications document DN-GEO-03060.

1.139 There is sufficient parking provision within the site to accommodate staff parking.

1.140 The results of this traffic assessment demonstrate that the development will have an imperceptible impact on traffic flows on the existing road network due to the low volumes of traffic being generated.

Cultural Heritage

1.141 The archaeological and cultural heritage component of an Environmental Impact Assessment Report of the proposed development at Coolaght, Co. Kildare consisting of a paper and fieldwork assessment was carried out in June 2021 – March 2024. A wide variety of paper, cartographic, photographic and archival sources was consulted. All the lands impacted by the proposed development were visually inspected. There are no archaeological monuments known in the application area or the study area. There will be no direct or indirect impacts on any known items of archaeology, cultural heritage or buildings of heritage interest in the application area or the vicinity during any phase of the proposal. In the worst-case scenario soil stripping in the application area during the construction stage might disturb previously unknown subsurface deposits or artefacts without preservation by record taking place. Due to the possibility of the survival of previously unknown subsurface archaeological deposits or finds within the application area, all soil-stripping should be archaeologically monitored.

1.142 Two appendices are included dealing with Recorded Monuments and sites entered in the Sites and Monuments Record. This section should be read in conjunction with the appendices.

Material Assets

1.143 The proposed development project involves extracting sand and gravel from a woodland site in Coolaght, Kilmeague, Co. Kildare, and filling the area with inert soil once extraction is complete. The project's location is rural, with nearby villages and limited public transportation.

Baseline Conditions:

1.144 The site is currently woodland, surrounded by agriculture, bog, and extractive related development.

1.145 Residential properties are mainly in nearby villages, and recreational facilities include walking trails and heritage sites.

Proposed Development:

1.146 The project will clear woodland for extraction and infill with soil, impacting the landscape.

1.147 Construction and operational phases will bring changes, however, decommissioning aims to restore the site to woodland.

Potential Effects:

1.148 The project could affect land use, property values, transportation, recreational facilities, and public utilities. Mitigation measures will be implemented to minimise negative impacts, including following industry guidelines and managing fuel and waste.

Natural Assets:

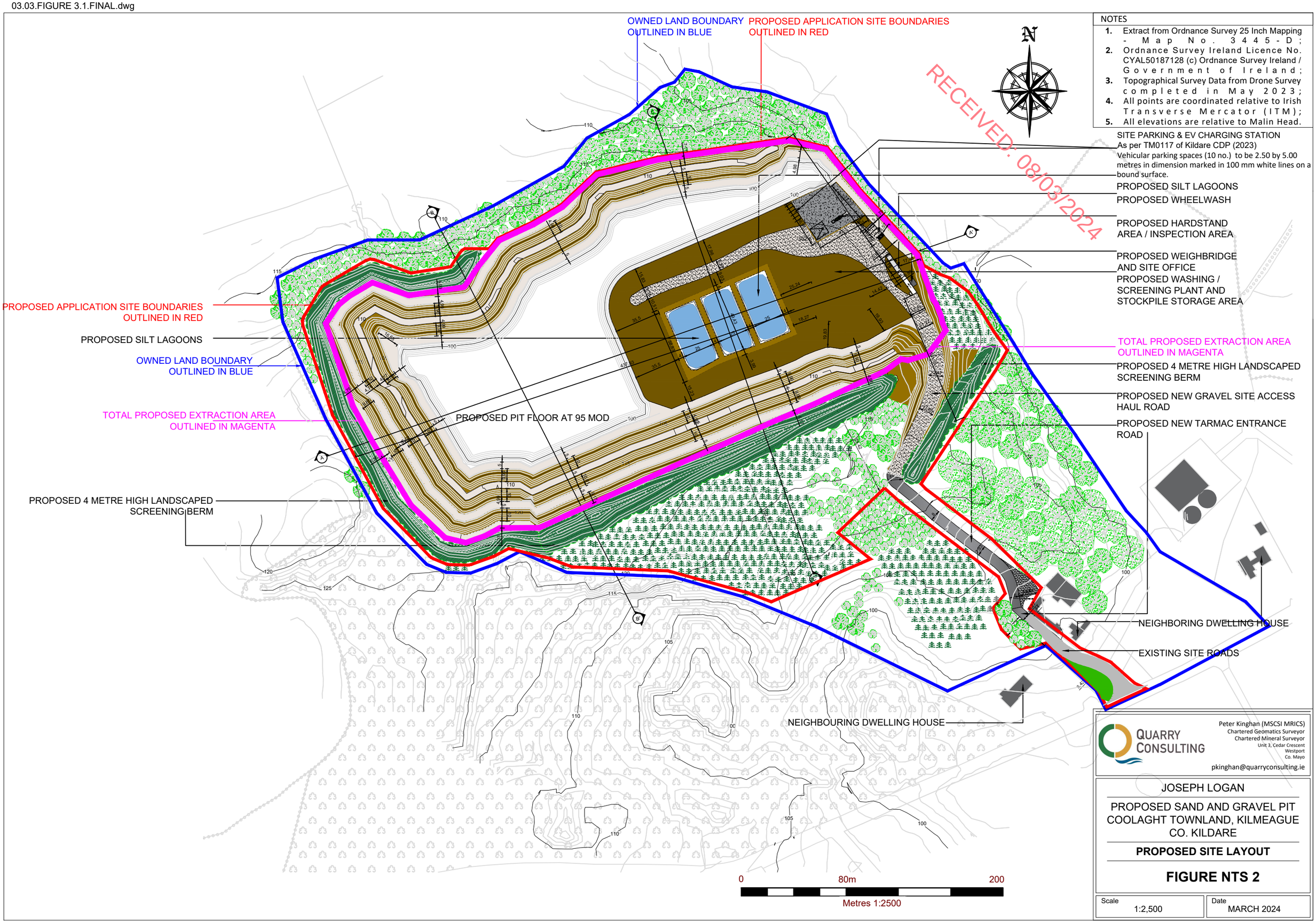
1.149 The project could impact biodiversity, landscape, geological, and natural resources, however, restoration plans include replanting with native species.

Conclusion:

1.150 The project balances resource extraction needs with environmental considerations and includes measures to mitigate negative impacts. Overall, the EIAR assesses the project's potential effects and proposes measures to minimize them, ensuring sustainable development in the area.

FIGURES

03.03.FIGURE 3.1.FINAL.dwg



RECEIVED: 08/03/2024

NOTES

1. Extract from Ordnance Survey 25 Inch Mapping - Map No. 3445-D;
2. Ordnance Survey Ireland Licence No. CYAL50187128 (c) Ordnance Survey Ireland / Government of Ireland;
3. Topographical Survey Data from Drone Survey completed in May 2023;
4. All points are coordinated relative to Irish Transverse Mercator (ITM);
5. All elevations are relative to Malin Head.

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JOSEPH LOGAN

PROPOSED SAND AND GRAVEL PIT
COOLAGHT TOWNLAND, KILMEAGUE
CO. KILDARE

PROPOSED SITE LAYOUT

FIGURE NTS 2

Scale	Date
1:2,500	MARCH 2024

03.03.FIGURE 3.1.FINAL.dwg

OWNED LAND BOUNDARY OUTLINED IN BLUE

PROPOSED APPLICATION SITE BOUNDARIES OUTLINED IN RED

AREA TO BE COVERED WITH 300mm OF TOPSOIL AND SEWN WITH A MIXTURE OF NATIVE BROADLEAF TREES - REFER TO EIAR CHAPTER 3 PARAGRAPHS 3.103 & 3.104

N

NOTES

1. Extract from Ordnance Survey 25 Inch Mapping - Map No. 3445-D;
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5. All elevations are relative to Malin Head.

PROPOSED APPLICATION SITE BOUNDARIES OUTLINED IN RED

OWNED LAND BOUNDARY OUTLINED IN BLUE

TOTAL PROPOSED RESTORATION AREA OUTLINED AND HATCHED IN GREEN

PROPOSED 4 METER HIGH LANDSCAPED SCREENING BERM TO BE RETAINED AND THICKENED TO IMPROVE BIO-DIVERSITY

AREA TO BE COVERED WITH 300mm OF TOPSOIL AND SEWN WITH A MIXTURE OF NATIVE GRASSES AND A MIXTURE OF NATIVE BROADLEAF TREES

EXISTING TREES

TOTAL PROPOSED RESTORATION AREA OUTLINED AND HATCHED IN GREEN

PROPOSED 4 METER HIGH LANDSCAPED SCREENING BERM TO BE RETAINED AND THICKENED TO IMPROVE BIO-DIVERSITY

NEIGHBORING DWELLING HOUSE

LANDSCAPE PLANTING YEAR 1

EXISTING SITE ROADS

NEIGHBOURING DWELLING HOUSE

0 80m 200

Metres 1:2500

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PROPOSED SAND AND GRAVEL PIT
COOLAGHT TOWNLAND, KILMEAGUE
CO. KILDARE

PROPOSED LANDSCAPING AND RESTORATION PLAN

FIGURE NTS 3

Scale	Date
1:2,500	MARCH 2024