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INTRODUCTION

Background

11.1 This Chapter of the Environmental Impact Assessment Report addresses the potential effects on material assets of the proposed backfilling of an existing hard rock quarry by way of an inert landfill and the operation of a construction and demolition (C&D) waste recovery facility, and the installation and operation of a soil washing plant at Ballinclare Quarry, near Kilbride, Co. Wicklow.

11.2 The proposed development at Ballinclare Quarry provides for the importation, disposal and/or recovery of inert construction and development wastes generated by projects in Counties Wicklow, Dublin and Wexford and for the long-term restoration of the former quarry.

11.3 It is proposed to backfill the existing quarry void at the application site to original / surrounding ground level by importing and landfilling inert soil and stone waste and in so doing re-establish the landform which existed prior to quarrying. The landfilling and restoration activities will both be undertaken on an ongoing, progressive basis.

11.4 As part of the proposed development, suitable uncontaminated, undisturbed, natural soil waste and/or soil by-product (i.e. non-waste) which conforms to an engineering specification will be imported for re-use in the construction of the basal and side clay liners required for the inert landfill.

11.5 Some uncontaminated topsoil waste and/or topsoil by-product will also be imported for use in the final restoration of the backfilled landform. Topsoil will be temporarily stockpiled at the landfill facility as required, pending its re-use as cover material.

11.6 The proposed development also provides for the establishment and operation of a construction and demolition (C&D) waste recovery facility across the footprint of the existing paved concrete blockyard at the quarry. The principal wastes to be recycled at this facility will include concrete (ready-mixed, reinforced, blocks and/or pavement slabs), bricks and bituminous mixtures (hardened asphalt returns and road planings).

11.7 It also provides for the set up and operation of a soil washing plant at the former concrete / asphalt production yard in the south-eastern corner of the application site. This plant will principally recover sand and gravel and recycled (secondary) aggregates from more granular soil intake and claybound C&D materials.

11.8 The proposed development provides for the following:

- Backfilling of the existing void at Ballinclare Quarry to original ground level by developing and operating an inert waste landfill facility with a total intake capacity of approximately 6,165,000 tonnes of inert soil and stone waste and (non-waste) soil and stone by-product and its progressive restoration to long-term scrub / grassland habitat thereafter;
- Continued use of established site infrastructure and services including, site / weighbridge office, staff welfare facilities, weighbridge, garage / workshop, wheelwash, hardstand areas, fuel and water storage tanks to service the proposed development;
- Installation of a new weighbridge along the inbound lane of the quarry access road;
- Decommissioning of any remaining fixed plant and infrastructure associated with former rock extraction activities or with aggregate, concrete, and asphalt production activities at the application site;
- Off-site removal of any materials or bulky wastes associated with the former quarrying and production activities;

- Construction of an industrial shed (portal frame structure) at the paved blockyard area to house crushing and screening equipment and process / recycle inert C&D waste (principally solid / reinforced concrete, bricks, ceramics and solid bituminous waste mixtures);
- Use of any remaining external paved area surrounding the C&D waste processing shed as a hardstanding area for the external handling and storage of both unprocessed and processed C&D wastes;
- Separation of any intermixed construction and demolition (C&D) wastes (principally metal, timber, PVC pipes and plastic) prior to its removal off-site to authorised waste disposal or recovery facilities;
- Installation and operation of a soil washing plant in the former concrete / asphalt yard in the south-eastern corner of the application site. The plant comprises a loading hopper, a number of soil screens in series with connecting conveyor systems, a primary wastewater treatment tank (thickener), a buffer tank holding sludge and recycled water, an elevated plate press and filter cake discharge area.
- Construction of an on-site (passive) wetland treatment system and attendant drainage infrastructure to treat surface water run-off / groundwater collecting in the sump / floor of the quarry area during backfilling / landfilling operations and surface water run-off from the C&D waste recovery area prior to its discharge off-site;
- Re-use of an existing storage shed as a dedicated waste inspection and quarantine facility to inspect and store suspect waste consignments as required.
- Upgrading and ongoing maintenance of established internal haul roads across the application site;
- Temporary stockpiling of topsoil pending re-use as cover material for final restoration of the inert landfill / backfilled quarry;
- Environmental monitoring of noise, dust, surface water and groundwater for the duration of the site backfilling and restoration works and for a short period thereafter.

11.9 The proposed maximum intake rate of inert waste for landfilling / disposal is 750,000 tonnes per annum. The maximum rate of C&D waste recovery is 50,000 tonnes per annum. The maximum combined inert waste / C&D waste intake of 800,000 tonnes / year activities will generate up to 150 HGV return trips (300 movements) each working day, or approximately 15 HDV return trips (30 movements) per hour.

11.10 All traffic to and from the proposed waste facility at Ballinclare Quarry will be routed along the L1157 Local Road, amending the previous one-way system that routed inbound traffic along the L1113 Local Road and outbound traffic along the L1157. Following discussions with the Roads Authority, provision is made for road improvements along the length of the L1157 leading up to the quarry access, including road widening to 6.0m over most of the route length (within the existing road curtilage), with road strengthening and repair overlay and road markings. The proposed road improvement works are not anticipated to require the removal of any trees along this route.

11.11 Further details on the proposed development (site infrastructure, operations, environmental management systems, and controls etc.) are provided in Chapter 2 of this EIAR.

Scope of Work / EIA Scoping

11.12 Article 3(1) of the amended EIAR Directive provides the revised headings by which an EIAR is to be written. According to the EPA Advice Notes on Current Practice (EPA (2003),

"Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin and the value may arise for either economic or cultural reasons".

11.13 Under Schedule 6 of the Planning and Development Regulations 2001 (as amended), material assets are taken to refer to architectural and archaeological heritage, and cultural heritage.

11.14 The more recently published EPA guidelines in relation to the preparation of EIAR[1] note the following in respect of material assets:

"Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes roads infrastructure."

11.15 The specific headings in the guidelines in relation to material assets refer to built services, roads and traffic and waste management. Chapter 14 of this EIAR address transport and traffic aspects while Chapter 12 addresses architectural heritage, archaeological heritage and cultural heritage separately to this Chapter.

11.16 This material assets impact assessment comprises the consideration of existing resources pertinent to the proposed development and the application site that are not addressed elsewhere in this EIAR and the likely development impacts on those resources. On this basis, this Chapter addresses built services and waste management. Built services are understood to refer to electricity, telecommunications, gas, water supply infrastructure and sewerage.

Consultations / Consultees

11.17 A pre-planning consultation meeting was held between officials of Wicklow County Council and representatives of Kilsaran Concrete and SLR Consulting Ireland on 7th February 2019 at the offices of Wicklow County Council in Wicklow Town. Staff from the roads, water and environment services departments of Wicklow County Council were also in attendance.

11.18 Details of the proposed development were presented at the meeting and issues of potential concern to the Planning Authority were identified and discussed. No specific concerns were raised in respect of material assets other than traffic related impacts on local roads.

11.19 Following a review of published development plans and site mapping / surveys, it was considered that there was no requirement for any further formal external consultations to be carried out in respect of material assets for the purposes of this assessment. There was however some consultation with other specialist contributors.

11.20 As this development constitutes Strategic Infrastructure Development (SID), a formal consultation exercise was also undertaken with statutory consultees and nearby residents / members of the general public between October and December 2020. Details of these consultations and the feedback obtained therefrom is provided in a separate report submitted in support of the SID application to An Bord Pleanála.

[1] Environmental Protection Agency (2017). *Guidelines on the Information to be contained in Environmental Impact Assessment Reports*.

Contributors / Author(s)

11.21 This Chapter of the EIAR was initially drafted by Crystal Leiker, a Senior Planner previously with SLR Consulting Ireland. It was subsequently reviewed and amended by Ciarán O'Sullivan, an Associate Planner at SLR Consulting Ireland. Ciarán is a qualified Town Planner with five years' experience. He holds a Bachelor (International, Spanish) of Geography, Planning and Environmental Policy and a Masters of Regional and Urban Planning (MRUP) from University College Dublin. He is a member of the Irish Planning Institute and the Royal Town Planning Institute. Ciarán has previously worked on numerous planning applications and EIAR's.

Limitations / Difficulties Encountered

11.22 No limitation or difficulties were encountered in the preparation of this Chapter of the EIAR.

REGULATORY BACKGROUND

Guidelines and Technical Standards

11.23 This chapter of the EIAR has been prepared on the basis of the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2017).

11.24 There are no technical standards relevant to this Chapter of the EIAR

Legislation

11.25 There is no specific legislation relevant to this Chapter of the EIAR. However, the information provided within this Chapter is informed by

- Section 37D and 171A of Planning and Development Act, 2000 (as amended);
- Article 94 and Schedule 6 of Planning and Development Regulations, 2001 (as amended);
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Planning Policy and Development Control

11.26 This Chapter of the EIAR is informed by the National Planning Framework (NPF) 2040 and the Wicklow County Development Plan 2016 - 2022 (CDP).

Significant Risks

11.27 The proposed waste development at Ballinclare Quarry is a relatively conventional project providing for the landfilling / backfilling of a former hard rock quarry using inert construction and demolition waste, principally soil and stone, and the processing of other C&D wastes to produce recycled aggregate at dedicated, purpose built facilities.

11.28 The nature and extent of the works involved do not present any risk of a major accident or disaster which would give rise to uncontrolled emissions of dangerous substances to air, land or water which could, in turn, give rise to significant adverse impacts on material assets in the surrounding local area.

RECEIVING ENVIRONMENT

Site Context

11.29 The application site at Ballinclare Quarry straddles the townlands of Ballinclare and Carrigmore townlands in Co. Wicklow and lies approximately 2.5km to the north-west of the small settlement of Kilbride, 2.5km south of the village of Glenealy and 7.5km south west of the town of Wicklow. The existing quarry development and site infrastructure was permitted by way of Wicklow County Council Planning Ref. 07/795, dated February 2008, and subsequently by Wicklow County Council Planning Ref. 14/2118, dated January 2016.

11.30 The area surrounding the application site is typically rural in character and dominated by forestry and undulating agricultural land. Residential property in the vicinity of the application site generally comprises farmsteads and isolated / single rural dwellings along the local road network.

11.31 A belt of woodland separates the application site from most receptors to the south and rising topography and/or woodland separates it from all receptors to the north. A watercourse, the Potters River, flows to the north and east of the site. Existing land use and residential development in the vicinity of the application site is shown in Figure 11-1.

11.32 The extraction of rock and associated production activities ceased at Ballinclare Quarry in June 2016 following the discovery of small quantities of naturally occurring asbestos (NOA) in the diorite bedrock which was being quarried at the time.

Study Area

11.33 For the purposes of this Chapter on Material Assets, the study area principally comprises the townlands of Ballinclare and Carrigmore and adjoining townlands, the residences / dwellings located therein and along the local road network around the application site

Baseline Study Methodology

11.34 The baseline study in respect of Material Assets comprised a desk-top review of online and published resources, information provided by the Applicant and information contained in the other Chapters of this EIAR. Ordnance Survey maps and aerial photography of the local area were also examined.

Sources of Information

11.35 All baseline information not contained within other chapters of this EIAR was obtained from the following resources:

- Myplan.ie (www.myplan.ie);
- Historic Environment Viewer (www.webgis.archaeology.ie/historicenvironment);
- Wicklow County Development Plan 2016-2022;
- OSi Maps;
- Aerial photography;
- Open Streetmaps (www.openstreetmaps.org).

Infrastructure

Roads

11.36 The most prominent infrastructure in the vicinity of the application site is the M11 Motorway which connects South Dublin / North Wicklow to Wexford and Rosslare Harbour. The motorway runs approximately 400m to the east of the application site at its closest point.

11.37 Traffic travelling to Ballinclare Quarry from the north turns off at Junction 18 of the M11 Motorway (beside the Beehive Inn in Coolbeg) and travels south-westwards for approximately 3.8km along the L1113 Local Road before then turning east to run along a short stretch (0.6km) of the L1157 Local Road to the existing quarry access.

11.38 Traffic travelling to the site from the south turns off R772 Regional Road (the former N11 National Primary Road) at the Tap Café at Kilbride and travels north-westwards along the L1157 Local Road up to the quarry entrance.

11.39 As the existing access junction with the L1157 Local Road is long-established and compliant with current design standards, there is no requirement to amend or upgrade it to facilitate the proposed landfilling and C&D waste recovery activities at Ballinclare Quarrry.

Water Supply

11.40 At the application site, non-potable / process water is sourced from an existing on-site groundwater supply well. Water for toilet flushing and washing at the existing staff welfare facilities is provided from a water tank, topped up as required with water from the on-site well.

11.41 There is no site based supply of potable water to the staff welfare facilities. Potable water for drinking is supplied to the site office and staff welfare facilities via replenishable containers which are refilled off-site and delivered to site as required. .

11.42 Water supplied to the wheelwash is recycled in a closed system and is topped up with water from the supply well or from the quarry sump as required. The wheelwash generates very little run-off and any it does either rapidly evaporates or infiltrates to ground. Water from the quarry sump is pumped to a water tank and used for dust suppression purposes.

11.43 It is understood that there is no mains water supply or group water scheme in the area, and that private residential properties in the area are supplied from private groundwater wells. There are no water abstractions from the Potters River downstream of its confluence with the Ballinclare Stream. The application site is not located within any designated public supply source protection area. The nearest such is that for the Redcross Public Water Supply (PWS) Scheme, located approximately 5km south of the site.

Utilities

11.44 There are few utilities / services in the vicinity of the application site. Overhead 220kV powerlines run beyond the eastern property boundary. A number of 38kV lines also criss-cross the local area.

11.45 Electricity will provide the principal source of energy for office lighting and heating at the proposed inert landfill / C&D waste recovery facility and will power any fixed plant or equipment. There is an existing connection to the electricity distribution network and a transformer at the quarry which will remain in place for the duration of the planned waste activities.

11.46 There is no municipal wastewater infrastructure in the area surrounding the application site. All wastewater generated at local residential properties and farm enterprises are managed privately by way of septic tanks and effluent discharge to ground via percolation areas (for domestic wastewater) or by landspreading (for agricultural wastes).

11.47 There is an existing septic tank and wastewater treatment system on-site at the quarry servicing established staff welfare facilities. These facilities were previously approved under Permission Reg. Ref. 14/2118 and will be brought back into service / reactivated before waste operations commence at the application site.

11.48 Although telephone lines run along the local road network leading to / from the proposed waste facility, it is envisaged that site based staff overseeing inert landfilling and C&D recovery operations 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.

Settlements and Housing

11.49 Residential housing in the area immediately surrounding the application site principally comprises isolated, single rural dwellings along the local road network. Most housing in the study area has been established for several (>5) years. The locations of properties close to the application site are indicated on the land use map provided in Figure 11-1, within 500m and 1km offsets from the application boundary. The nearest large settlement cluster of any significance is at the village of Glenealy, located approximately 2.5km to the north of the application site.

Local Enterprise

11.50 Farm based businesses and related agricultural / food production activities are the principal source of economic activity in the area surrounding the application site. There are also likely to be a number of small home or farm based rural enterprises operating out of local residential properties in the area (eg. a yoga studio in the property immediately north of the application site, craft or horticultural based businesses).

11.51 There is another quarry located in Kilmacurragh West, on the opposite side of the L1157 Local Road to the application site. It is understood that this quarry is not currently active and that it has not been active for over 15 years.

11.52 The principal tourism / amenity facility in the local area is the Kilmacurragh Botanic Gardens, an outpost of the National Botanic Garden in Glasnevin, Dublin, which is located just under 1km to the south-west of the site. The location and extent of adjoining enterprises are shown on the land use map provided in Figure 11.1

Waste Management

11.53 Ballynagran Landfill Ltd. currently operates a non-hazardous waste landfill at a site located approximately 3km to the north-east of the application site, in Ballynagran townland. The landfill site is accessed via a T-junction located just 200m west of the grade separated junction with the M11 Motorway at Coolbeg (Junction 18, beside the Beehive pub).

11.54 The landfill commenced operations / waste intake in 2006 and is currently licenced by the EPA (Licence Ref. W0165-02) to accept up to 175,000 tonnes of household, commercial and industrial waste per annum for disposal and up to 28,000 tonnes per annum of construction and demolition waste for recovery through its use in site engineering and landfill restoration works.

11.55 In January 2020, Wicklow County Council granted permission to extend the original 15 year life of the landfill at Ballynagran by a further 5 years, up to the end of 2026, in accordance with the provisions of Section 42 of the Planning and Development Act 2000 (as amended) (Permission Reg. Ref. 20/21).

11.56 All traffic accessing the waste facility at Ballynagran travels via a short stretch of the L1113 Coolbeg Road from Junction 18 of the M11 Motorway at the Beehive Pub.

11.57 The proposed inert landfill and C&D waste recovery facility at Ballinclare Quarry will be operated as an EPA licensed waste facility. All soil and stone / C&D wastes imported to the facility will be inert according to the criteria set out in Council Directive 20-3/33/EC[2] and will be carried to the application site by authorised waste collectors and hauliers. The inert materials imported to the application site / facility will be accepted under a strictly controlled approval and permitting system.

11.58 No extractive waste will be generated by the proposed development. Any natural site-won materials will be used for landfilling and/or restoration works at the application site.

11.59 There is some solid waste associated with former rock extraction and processing activities at the application site, principally remnants of former plant, equipment and built structures. This waste will be removed off-site for recovery or disposal at authorised waste recovery facilities and decommissioned / dismantled in advance of the proposed inert landfill and C&D waste recovery activities.

Existing and Future Land Use

11.60 The area surrounding the application site principally comprises agricultural land supporting rural farm-based enterprises, together with residential properties located along the local road network. There is also an inactive quarry located to the south of the application site, on the opposite side of the L1157 Local Road.

11.61 None of the lands in the immediate vicinity of the application site which are currently used for agricultural, forestry (or past extractive) purposes are zoned for any specific form of future development in the CDP.

Property Receptors

11.62 There are 13No. potentially sensitive properties located within 500m of the application site boundary, with a further 18No. within 1000m, the majority of which are located to the north and west of the site. The existing housing pattern in the vicinity of the application site is shown on Figure 11-1. As can be seen, the closest properties to the application site are:

- Two properties located beyond the south-western property boundary, close to the T-junction between the L1113 and L1157 Local Roads (Ref.R1 and R2);
- Three properties located beyond the north-western property boundary, closest to the Wicklow County Council compound and the T-junction with the local road to Deputy's Pass and Glenealy (Ref.R7, R8 and R9);
- A property located approximately 200m beyond the ridgeline which delineates the northern property boundary (Ref. R10);
- A property located approximately 250m beyond the eastern property boundary, close to the right (eastern) bank of the Kilmacurragh Stream Ref. R13).

11.63 There are no schools, churches, ships or playing grounds in the immediate vicinity of the application site. While these and other receptors are located within the wider local area, they are generally located more than 1km beyond the application site boundary.

[2] Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC

IMPACT ASSESSMENT

Evaluation Methodology

11.64 The evaluation of effects on built services and waste comprises a qualitative assessment based on an analysis of potential effects on the environment undertaken in other sections of this EIAR. The assessment also takes into account a review of relevant literature and professional judgement in relation to impacts on built services and waste.

11.65 The permitted inert landfilling scheme provides for the importation of approximately 6,165,000 tonnes of excess inert waste to backfill the former rock quarry at Ballinclare, equivalent to approximately 308,250 HGV return trips (at 20 tonnes per load).

11.66 Should the facility operate at full capacity, at a maximum landfilling rate of up to 750,000 tonnes per annum, it is expected that landfill operations would be completed in 8.2 years. At a more modest intake rate of 350,000 tonnes per annum, it is considered that landfill operations could be completed in just over 17.6 years.

11.67 In addition to these activities, up to 50,000 tonnes of inert C&D waste will also be imported annually to the facility for recovery purposes and the production of recycled aggregate. Some more sandy, granular soils or claybound C&D will be directed to the soil washing plant to recover aggregates for re-use in production of construction materials. Soil washing activities will cease in advance of the final phase of landfilling across the former quarry footprint. C&D waste recovery (crushing) activities will cease on completion of landfilling and restoration works.

Infrastructure

Construction and Operational Stage Impacts – Roads

11.68 The proposed development will generate traffic movements over the existing public local road network and over the R772 Regional Road and M11 Motorway. These traffic levels will replace, and will not exceed, traffic levels which are currently permitted for extractive related activities at Ballinclare Quarry (of up to 150 HGV trips per day).

11.69 The existing road network and the proposed haul route (via the M11 N18 junction, the R772 Regional Road and L1157 Local Road) has demonstrated its ability to support comparable levels of HGV traffic to and from the application site in the past and was subject to detailed review and assessment of maintenance requirements prior to grant of the existing extractive permission (Planning Reg. Ref. 14/2118).

11.70 An assessment of likely development impacts on the local road network, presented in Chapter 14 (Traffic) of this EIAR, concluded that with appropriate road improvement and upgrading measures in place along the L1157 Local Road, the proposed waste facility at Ballinclare Quarry will not have a likely significant effect on either traffic safety or the existing capacity of local roads and junctions.

Post-Operational Stage Impacts – Roads

11.71 On completion of landfilling and final restoration activities at the quarry, there will be a permanent reduction in HGV traffic movements over the local road network leading to and from the application site, with consequent reduction in HGV traffic levels and an improvement in road service levels.

Construction and Operational Stage – Water Resources

11.72 Precautions / mitigation measures will be implemented to ensure that any potential impact of site based activities on local surface waters and groundwater underlying the application site (e.g. accidental oil or fuel spills) is minimised in order to safeguard and protect potential surface water and groundwater resources.

11.73 In avoiding and minimising direct impact on groundwater, there will also be no indirect impacts on recharge to local watercourses or on groundwater supply wells at local residential properties. A detailed assessment of surface water and groundwater risks and measures to mitigate potential impacts are outlined in Chapter 7 (Water) of this EIAR.

Post-Operational Stage Impacts – Water Resources

11.74 On completion of landfilling and final restoration activities at the quarry, there will be a permanent reduction in direct risks to surface water bodies and groundwater.

Construction and Operational Stage Impacts- Utilities

11.75 The proposed landfilling and restoration of the former quarry and C&D waste recovery activities are not likely to give rise to any short-to-long term impacts on services / utilities.

11.76 Any electrical power supply required at the waste facility will continue to be stepped down from the existing overhead power lines at the existing site based transformer and supplied to site offices / plant as required. Electricity will provide the principal source of energy for office lighting and heating at the facility.

11.77 Due regard will be had to the 220kV overhead power lines when landfilling along the eastern site boundary. Standard construction safety practices for working close to the overhead power lines around the facility will be implemented for all site based operations in order to safeguard the health and safety of employees, hauliers and visitors, in line with statutory obligations under health and safety legislation. Such measures will also serve to protect overhead lines from any damage by site based plant and activities.

Post-Operational Stage Impacts- Utilities

11.78 On completion of landfilling and restoration activities, there will be no long-term risk presented to existing utilities / services around the application site.

Waste

Construction and Operational Stage Impacts

11.79 Prior to commencement of the proposed inert landfilling and C&D waste recovery activities, management systems will be established and implemented at site establishment stage to control and manage all potential waste streams, to avoid waste generation where possible and to maximise re-use or re-cycling opportunities thereafter.

11.80 Any vegetation to be cut and removed off site during the site establishment or subsequent phases will be managed by a landscape contractor and brought to an authorised waste recycling facility.

11.81 General office and food waste produced at the site offices will be minimised insofar as possible. Arrangements will be made for periodic collection of general / recyclable waste by authorised waste contractors and for submission of collected waste for recovery or disposal, as appropriate, at authorised waste facilities.

11.82 Waste oils, batteries, domestic waste and scrap metal will be stored on site in designated (bunded) storage areas at the existing workshop and will be collected and recycled or disposed of at authorised off-site waste facilities by authorised waste contractors.

11.83 The proposed development of a waste facility at Ballinclare Quarry will comply with all waste management responsibilities prescribed by conditions attached to any future grant of planning permission and/or EPA waste licence.

11.84 In light of the above, and the limited volume of wastes generated, it is considered that the generation of waste by on-site activities over the period of the inert landfilling, C&D waste recovery and final restoration works will not give rise to any significant short-to-long term effects on land or groundwater quality or on local waste collection / off-site waste management capacity.

Post-Operational Stage Impacts

11.85 On cessation of site activities, waste management impacts will be effectively eliminated following completion of a waste licence surrender process by the EPA. It is considered that the proposed development will not have any effect on local waste generation or waste management needs over the longer-term.

Property Receptors

Construction and Operational Stage Impacts

11.86 The proposed development of a waste disposal and recovery facility at Ballinclare Quarry will give rise to a potential increase in the impact of ambient noise, ambient dust and traffic on residential properties and rural based enterprises in the vicinity of the application site. As outlined in Chapters 8, 10 and 14 of this EIAR, a number of mitigation measures are proposed to control and minimise these effects at the properties closest to the application site.

11.87 Implementation of the planned measures will ensure that the residual effects of the proposed development on nearby properties during inert landfilling, restoration and C&D waste recovery activities at the application site are acceptable and not significant.

11.88 As previously noted, precautions / mitigation measures will also be applied to ensure that any potential impact of site based activities on surrounding surface water bodies and groundwater underlying the application site (eg. accidental oil or fuel spills) and its associated abstraction / use will be minimised. These measures are outlined in detail in Chapter 7 of this EIAR.

Post-Operational Stage Impacts

11.89 The impact of the proposed development on nearby properties and rural based enterprises will be significantly reduced on completion of inert landfilling, C&D waste recovery activities and restoration works.

11.90 When the completed landfill is restored to long-term grassland / scrub habitat, with some agricultural grassland use, the higher, more visually prominent areas of the application site will better blend into the surrounding landscape. The assessment of landscape and visual impacts presented in Chapter 13 of this EIAR concluded that the proposed development will, on completion, have an overall permanent positive impact on the local landscape character and on local views into the application site.

11.91 On the basis of the foregoing, it is concluded that there would be no likely significant long-term effects on residential property or rural based enterprise as a result of the proposed development.

Existing and Future Land Uses

11.92 The proposed inert landfilling and restoration of the former quarry will largely restore the landscape to its original, pre-extraction state. The completion of these activities therefore will provide a final landform which is more in keeping with surrounding land-use.

11.93 The inert landfilling and C&D waste recovery activity will not effect, or interfere with, any established extractive, rural enterprise or agricultural activities or local residential property at surrounding landholdings over the short and/or long term.

Unplanned Events

11.94 According to the EPA guidelines, unplanned events, such as accidents, can include *"spill from traffic accidents, floods or landslides affecting the site, fire, collapse or equipment failure on the site"*. The 2014 EIA directive refers to *"major accidents, and/or natural disasters (such as flooding, sea level rise, or earthquakes)"*.

11.95 In this instance, the vulnerability of the proposed development to accidents, unplanned events or natural disasters is relatively limited owing to

- the relatively straight-forward nature of the proposed site establishment, backfilling and restoration works,
- the inert nature of the materials to be disposed of and recovered on-site and the relatively rural location of the proposed works.
- the proven capability and performance of the plant, equipment and technologies to be used in executing the works and
- the well-established procedures which will be employed to manage and control the works.

11.96 Unplanned events in relation to the proposed development could potentially relate to:

- instability arising from over-steep placement of imported inert waste (principally soil and stones) at the application site;
- spill from HGVs and other plant or vehicles moving within the site;
- flooding.

11.97 Effects arising from unplanned events will not have any impact on material assets considered herein. Effects of unplanned events on water resources and the local environment are addressed separately in Chapter 7 of this EIAR.

Cumulative / Synergistic Impacts (if any)

11.98 A search of the Wicklow online planning search facilities indicates that no other major developments are planned or have been granted planning permission in the last five years in the vicinity of the application site or in surrounding townlands. Planning permission for Ballynagran landfill has recently been extended for 5 years to 2026 (Planning *Reg. Ref. 20/21*), but all of the associated environmental impacts are established and have been factored into the baseline surveys presented in this EIAR. As such there is no potential for other development to create significant adverse cumulative impacts on the local environment and material assets in particular.

Transboundary Impacts

11.99 Given the location and site context of the application site, it is not anticipated that the impacts of the proposed development will have any significant transboundary effects on material assets.

Interaction with Other Impacts

11.100 It is anticipated that the effects of the proposed development on material assets will not interact significantly with any others apart from groundwater, where any potential impact on groundwater could potentially impact surface water bodies and/or private water supply wells down hydraulic gradient of the application site. These impacts are assessed in Chapter 7 (Water) of this EIAR.

'Do-nothing Scenario'

11.101 In a "do nothing scenario", the proposed inert landfilling and C&D recovery and land restoration activities would not proceed at the application site and the bare, disturbed landform which currently exists across the site would remain unchanged. This would result in no significant adverse impact in relation to existing material assets, specifically infrastructure, utilities, waste or land-use.

MITIGATION MEASURES

Construction and Operational Stage Impacts

11.102 The mitigation of the construction and operational stage impacts of the proposed development in respect of ecology, water, air quality, noise, ecology, cultural heritage and traffic are detailed in the relevant Chapters of this EIAR. It is not considered that any additional mitigation measures, over and above those proposed for environmental emissions, are required in respect of infrastructure, utilities or sensitive receptors, other than those set out in other Chapters of this EIAR.

Post-Operational Stage Impacts

11.103 It is not considered that there are any long-term, post-operational impacts associated with the proposed development that require mitigation in respect of material assets, other than those identified elsewhere in other relevant Chapters of this EIAR.

RESIDUAL IMPACT ASSESSMENT

Construction and Operational Stage

11.104 As no significant effects are anticipated in relation to built assets or waste management and no specific mitigation measures are required in respect of material assets during the construction and operational stage, no residual impact is anticipated.

Post – Operational Stage

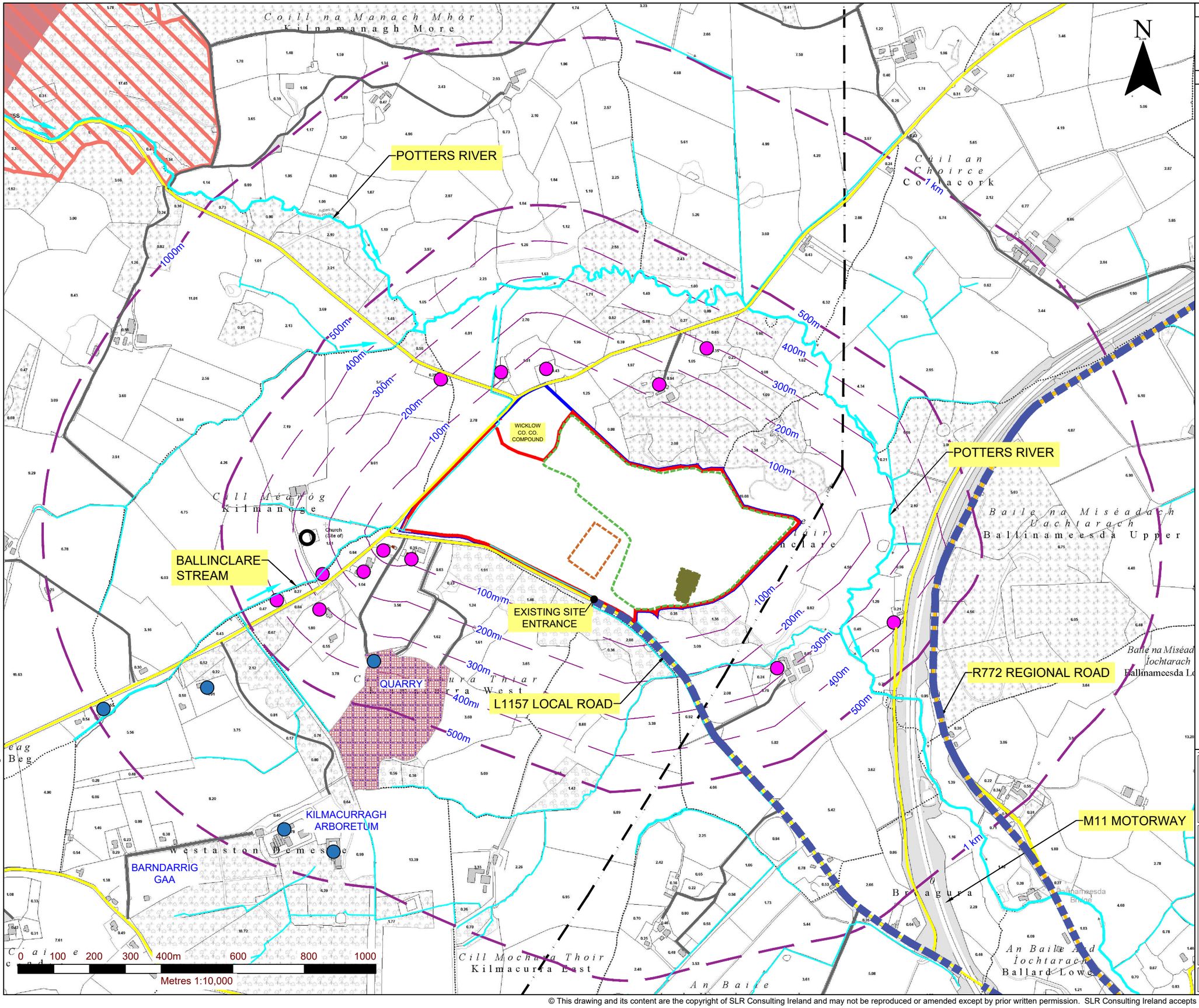
11.105 As no significant effects are anticipated in relation to built assets or waste management and no mitigation measures in respect of material assets are required during the post-operational stage, no residual impact is anticipated.

MONITORING

11.106 Monitoring, over and above those proposed for environmental emissions in other Chapters of the EIAR, is not required or proposed specifically in respect of material assets.

FIGURES

Figure 11-1
Surrounding Land Use



NOTES

1. EXTRACT FROM ORDNANCE SURVEY 6 INCH MAPPING WW030 & WW0311
2. ORDNANCE SURVEY IRELAND LICENCE NO. CYAL50167032 (C ORDNANCE SURVEY IRELAND/ GOVERNMENT OF IRELAND
3. EXISTING SURVEY (MAY 2016) PROVIDED BY KILSARAN

LEGEND

- LANDHOLDING BOUNDARY (c. 36 Ha. / 89 acres)
- PLANNING APPLICATION AREA (c. 32.5 Ha.)
- INERT WASTE LANDFILL FOOTPRINT (c. 17.0 Ha.)
- C&D WASTE RECOVERY FACILITY AREA
- PROPOSED SOIL WASHING PLANT
- 500m, 1km, 2km & 3km DISTANCE OFFSETS FROM BOUNDARY
- RESIDENTIAL RECEPTORS
- COMMERCIAL RECEPTORS
- 002274 - DEPUTY'S PASS NATURE RESERVE SAC
- 001756 - GLENEALY WOODS pNHA
- R772 REGIONAL ROAD
- LOCAL ROAD NETWORK
- ACCESS TRACKS
- 220kV ELECTRIC OVERHEAD LINE
- RIVER / STREAMS
- HAUL ROUTE

SLR CONSULTING IRELAND
7 DUNDRUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14
T: +353-1-2964667
F: +353-1-2964676
www.slrconsulting.com

KILSARAN CONCRETE

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

BALLINCLARE QUARRY RESTORATION &
INERT WASTE & C+D WASTE RECOVERY FACILITY
KILBRIDE (N11), CO. WICKLOW

MATERIAL ASSETS

FIGURE 11-1

Scale: 1:10,000 @ A3

Date: MARCH 2021

00036.00080.0.16.FIG 11-1.0.Material Asset.V1.dwg