

## CONTENTS

|  |              |
|--|--------------|
| <b>INTRODUCTION .....</b>                    | <b>11-1</b>  |
| Background .....                             | 11-1         |
| Scope of Work / EIA Scoping.....             | 11-3         |
| Consultations / Consultees .....             | 11-4         |
| Contributors / Author(s) .....               | 11-5         |
| Limitations / Difficulties Encountered ..... | 11-5         |
| <b>REGULATORY BACKGROUND.....</b>            | <b>11-5</b>  |
| Guidelines and Technical Standards .....     | 11-5         |
| Legislation .....                            | 11-6         |
| Planning Policy and Development Control..... | 11-6         |
| Significant Risks .....                      | 11-6         |
| <b>RECEIVING ENVIRONMENT.....</b>            | <b>11-6</b>  |
| Site Context.....                            | 11-6         |
| Study Area.....                              | 11-6         |
| Baseline Study Methodology .....             | 11-7         |
| Sources of Information.....                  | 11-7         |
| Infrastructure .....                         | 11-7         |
| Settlements and Housing.....                 | 11-8         |
| Local Enterprise.....                        | 11-9         |
| Waste Management.....                        | 11-9         |
| Property Receptors.....                      | 11-10        |
| <b>IMPACT ASSESSMENT .....</b>               | <b>11-10</b> |
| Evaluation Methodology .....                 | 11-10        |
| Infrastructure .....                         | 11-11        |
| Waste .....                                  | 11-12        |
| Property Receptors.....                      | 11-13        |
| Existing and Future Land Uses.....           | 11-14        |
| Unplanned Events .....                       | 11-14        |
| Cumulative / Synergistic Impacts .....       | 11-14        |
| Transboundary Impacts .....                  | 11-15        |
| Interaction with Other Impacts .....         | 11-15        |
| ‘Do-nothing Scenario’ .....                  | 11-15        |
| <b>MITIGATION MEASURES .....</b>             | <b>11-16</b> |

|   |              |
|---|--------------|
| Construction and Operational Stage Impacts..... | 11-16        |
| Post-Operational Stage Impacts .....            | 11-16        |
| <b>RESIDUAL IMPACT ASSESSMENT .....</b>         | <b>11-16</b> |
| Construction and Operational Stage .....        | 11-16        |
| Post – Operational Stage.....                   | 11-16        |
| <b>MONITORING .....</b>                         | <b>11-16</b> |

FIGURES

| Figure 11-1: Surrounding Land Use

## INTRODUCTION

### Background

- 11.1 This Chapter of the Environmental Impact Assessment Report addresses the potential effects on material assets of the proposed establishment and operation of a materials recovery / recycling facility and inert landfill at Ballinclare Quarry, Kilbride, Co. Wicklow which comprises three key elements
- a soil washing plant to win aggregate from imported soil and stone;
  - a construction and demolition (C&D) waste recycling facility to produce aggregate from construction and demolition waste (principally concrete); and
  - an engineered (i.e. lined) landfill to facilitate backfilling and restoration of the existing quarry void with inert waste (principally soil and stone).
- 11.2 The proposed development at Ballinclare Quarry provides for the importation, re-use, recovery and/or disposal of a range of inert wastes generated by construction and development projects in Counties Wicklow, Dublin and Wexford as well as the re-use of excess, non-waste by-product materials (principally uncontaminated soil and stone).
- 11.3 The proposed soil wash plant will be set up and operated 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. Aggregates will be won from imported non-waste by-product as well as from inert waste materials.
- 11.4 The proposed construction and demolition (C&D) waste recovery facility will be set up and operated across the existing paved area to the west of the existing site access road. 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).
- 11.5 All aggregates from waste will be of construction grade and will comply with an engineering specification and the End of Waste criteria for recycled aggregates recently published by the EPA.
- 11.6 It is proposed to backfill the existing quarry to original / surrounding ground level by importing and placing inert waste, principally soil and stone, in a lined landfill facility and in so doing, re-establish the original landform which existed prior to quarrying. The landfilling and restoration activities will be undertaken on an ongoing, progressive basis and on completion, the final landform will be restored to a native woodland habitat.
- 11.7 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.
- 11.8 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.
- 11.9 The proposed development provides for the following:
- Installation and operation of a soil washing plant at the former concrete / asphalt yard to produce construction grade sand and gravel aggregate from imported excess soil and stone. The soil washing 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 a close-sided industrial shed (portal frame structure with roof mounted solar panels) at the existing paved area to the west of the access road 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 external paved and hardstanding areas surrounding the C&D waste processing shed for the external handling and storage of both unprocessed and processed C&D wastes;
- Separation of any intermixed solid 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;
- Substantial backfilling of the existing quarry void to a maximum level of 80mOD through disposal of imported inert soil and stone waste and residual fines from the soil washing process and the use of non-waste soil by-product for engineering, capping and/or landscaping purposes
- The progressive restoration of the completed landfill landform to long-term native woodland habitat;
- Continued use of established site infrastructure and services including, site / weighbridge office, staff welfare facilities, surface water run-off and wastewater treatment systems, weighbridge, garage / workshop, wheelwash, hardstand areas, fuel and water storage tanks to service the proposed development;
- Clearance of vegetation and felling of a number of mature trees to facilitate widening of the internal site access road and make provision for off-road queuing of inbound HGVs within the application site boundary;
- Decommissioning of any remaining fixed plant and infrastructure associated with former rock extraction or concrete / asphalt production activities;
- Off-site removal of any waste materials or bulky wastes associated with former quarrying or production activities;
- Installation of a new weighbridge along the inbound lane of the quarry access road;
- Installation of an additional wheelwash facility on the eastern side of the former concrete / asphalt yard;
- Modification / upgrade of existing drainage channel along the site access road, Installation of silt trap and hydrocarbon interceptor to treat run-off and provision of additional pumping capacity to transfer run-off from existing surface water pond at site entrance to quarry sump
- Installation of a silt trap and hydrocarbon interceptor at the proposed C&D waste recovery facility to treat run-off prior to being pumped to the soil wash plant or surface water ponds elsewhere on site.
- Installation of a sub-surface concrete wastewater holding tank;
- Construction and establishment of an on-site (passive) wetland treatment system and any associated drainage infrastructure to treat / polish water collected from the active backfilling / landfilling cells prior to its discharge off-site to the Ballinclare Stream;
- Re-use of an existing storage shed as a dedicated waste inspection and quarantine facility to inspect and store suspect waste consignments as required. Any waste which has been accepted at the facility and which is likely (on basis of visual inspection) or confirmed (on basis of compliance testing) to be non-compliant with

waste acceptance criteria for the facility will be temporarily stored at this location pending results of further waste classification testing and a decision as to how and where they should ultimately be disposed of or recovered;

- Re-alignment, upgrading and ongoing maintenance of internal haul routes across the application site;
- Temporary stockpiling of topsoil pending re-use as cover material for final restoration of the inert landfill / backfilled quarry void;
- Implementation of a series of measures to enhance local biodiversity including the retention of habitats and features of biodiversity value (e.g. ponds, buildings), quarry face retention for nesting peregrine falcon, establishment of an artificial sand martin colony, creation of roost space / deployment of bird boxes for bats, creation of habitat / erection of bird nest boxes for breeding / roosting birds and erection of fence along the site perimeter to include access points for mammals.
- Environmental monitoring of noise, dust, surface water and groundwater for the duration of the landfilling and restoration works and C&D waste recovery / recycling activities and for a short period thereafter;
- All ancillary site works, landscaping and perimeter fencing

11.10 (waste and by-product) for aggregate production and landfilling / disposal is 550,000 tonnes per annum. The maximum rate of C&D waste recovery is 50,000 tonnes per annum. At a maximum combined intake rate of 600,000 tonnes per annum, activities will generate an average of approximately 9-10 HGV return trips per hour every working day.

11.11 The development proposal provides for the routing of all traffic to and from the proposed development along the L1157 Local Road. It also includes provision for a comprehensive road improvement scheme along the entire length of the L1157 leading up to the application site, including road widening to 6.0m everywhere along its length, with road strengthening and repair overlay and road markings where required.

11.12 Under the routing proposal, the majority of the HGVs travelling to the proposed development from Dublin and North Wicklow will use the M11 Motorway, exiting at Junction 18 and joining the R772 Regional Road southbound. After travelling south for approximately 4km, traffic heading for the facility will turn right, off the R772, and onto the L1157 at the ghost island junction beside the Junction 18 Coffee Shop and Green Angel premises at Kilbride. The access junction to the quarry and proposed development is located along the L1157, approximately 2km north-west of the R772 junction.

11.13 It is estimated that only a minor proportion of HGV traffic will arrive from the direction of Arklow and North Wexford. This traffic will use the M11 Motorway, exiting at Junction 19 to turn onto the R772 Regional Road at Jack Whites Pub. It will then travel north for approximately 5km, turn left off the R772 and onto the L1157, and continue thereafter up to the quarry and proposed development.

11.14 The proposed haul route requires all HGV traffic departing the proposed facility to turn left and follow the upgraded L1157 back to the junction with the R772 Regional Road, and from there continue toward the national motorway network.

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

## Scope of Work / EIA Scoping

11.16 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”.*

- 11.17 Under Schedule 6 of the Planning and Development Regulations 2001 (as amended), material assets are also taken to refer to architectural and archaeological heritage and to cultural heritage.
- 11.18 Article 3(1) of the amended EIAR Directive provides the revised headings by which an EIAR is to be written. The EPA subsequently released 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports', which were finalised in 2022, and it sets out the information to be contained in an EIAR Material Assets chapter.
- 11.19 The EPA guidelines on the preparation of EIARs<sup>1</sup> 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.”*  
 The specific headings in the guidelines in relation to material assets refer to as-built services, roads and traffic and waste management.
- 11.20 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.
- 11.21 As a result, this material assets impact assessment focusses on existing resources pertinent to the proposed development, application site and surrounding area that are not addressed elsewhere in this EIAR, as well as likely development impacts on those resources. On this basis, it is primarily focussed on built services and waste management aspects of the proposed development. Built services are understood to refer to electricity, telecommunications, gas, water supply infrastructure and sewerage.

## Consultations / Consultees

- 11.22 As this development constitutes Strategic Infrastructure Development (SID), a formal pre-application consultation exercise was undertaken with a number of prescribed bodies on the advice / directions of An Bord Pleanála, including the Eastern and Midland Waste Regional Authority, the Environmental Protection Agency, Failte Ireland and Wicklow County Council. Consultations with Wicklow County Council were principally with officials from the Environment and Roads Departments.
- 11.23 Feedback obtained from Prescribed Bodies is detailed and addressed in the relevant technical chapters of this EIAR and in the Consultation Report with accompanies the SID planning application. Of most relevance to this materials assets assessment is feedback received from the Eastern-Midlands Waste Regional Authority which identified positive alignment between the proposed development and the *National Waste Management Plan for a Circular Economy 2024-2030* and its target of achieving 0% waste growth over the life of the Plan. Feedback from the Authority also highlighted the need for proposals to comply with the waste hierarchy and the local planning authority's individual siting requirements for waste facilities.
- 11.24 A pre-application meeting was also held with the Environment Section of Wicklow County Council. The feedback received was also positive in view of the lack of existing facilities in County Wicklow for the disposal of inert soil and stone and the extent of materials that currently originate from Dublin and pass through the county for ultimate disposal in County Wexford. In addition, the potential for the proposed development to reduce the need for virgin aggregate was identified as a particularly welcome benefit / advantage. The modification of the original (2021) development proposal to place greater emphasis on soil

<sup>1</sup> Environmental Protection Agency (2022). *Guidelines on the Information to be contained in Environmental Impact Assessment Reports*.



processing and the recovery of construction grade aggregate from waste was also commended.

- 11.25 Separate consultations were also held with local residents and members of the general public in August and September 2024. 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.
- 11.26 The issues raised in the public consultation which were of greatest relevance to this materials assets assessment concerned the need to control the quality and compliance of waste materials which would be imported and accepted at the facility, the avoidance of excessive or unnecessary material haulage to / from application site and how waste intake and disposal would be controlled or managed to ensure that landfilling was completed within 25 years (thereby avoiding the need to extend the life of the facility).
- 11.27 Following a review of available information, it was considered that there was no requirement for any further formal external consultations to be carried out in respect of materials assets for the purposes of this assessment. There was consultation with other specialist contributors, most notably in respect of water supply (hydrogeology) with those preparing the water chapter of this EIAR (Chapter 7).

## Contributors / Author(s)

- 11.28 This Chapter of the EIAR was originally drafted 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 (IPI) and the Royal Town Planning Institute (RTPI) and has worked extensively on preparation of planning applications and EIARs.
- 11.29 This Chapter has been updated by Lynn Hassett, an Associate with SLR Consulting Ireland. Lynn holds a BSc in Applied Ecology (2000) and an MSc in Environmental Impact Assessment (2001) and in her current role, acts as an EIA Co-ordinator for SLR Consulting Ireland.
- 11.30 Lynn has 15 years of experience in EIA across the not-for-profit, public and private sectors in the UK and Ireland. She has worked on the production and co-ordination of EIARs accompanying planning applications and also on the review of EIARs on behalf of planning authorities processing such applications. She is also a Practitioner Member of the Institute of Environmental Management and Assessment (IEMA) and has been a member since 2001. She is also a Full Member of the Institution of Environmental Sciences, which she joined in 2023.

## Limitations / Difficulties Encountered

- 11.31 No limitation or difficulties were encountered in preparing this Chapter of the EIAR.

## REGULATORY BACKGROUND

### Guidelines and Technical Standards

- 11.32 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 (2022).
- 11.33 There are no technical standards relevant to this Chapter of the EIAR.

## Legislation

- 11.34 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

- 11.35 This Chapter of the EIAR is informed by the National Planning Framework (NPF) 2040 and the Wicklow County Development Plan 2022 - 2028 (CDP).

## Significant Risks

- 11.36 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 excess materials (non-waste by-products) and C&D waste to produce recycled aggregate at dedicated, purpose-built facilities.
- 11.37 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

- 11.38 The application site at Ballinclare Quarry straddles the townlands of Ballinclare and Carrigmore townlands in Co. Wicklow and lies approximately 2.5 km to the northwest of the small settlement of Kilbride, 2.5 km south of the village of Glenealy and 7.5 km southwest 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 extended by Wicklow County Council Planning Ref. 14/2118, dated January 2016.
- 11.39 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.
- 11.40 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.
- 11.41 The extraction of rock and associated production activities were suspended 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

- 11.42 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. The study area was selected to ensure that all built service infrastructure within the application site was identified and a 1km buffer was included to ensure that any associated structures or inter-reliance in the immediate surrounding area were considered if appropriate.

## Baseline Study Methodology

- 11.43 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

- 11.44 All baseline information not contained within other chapters of this EIAR was obtained from the following resources:
- Myplan.ie ([www.myplan.ie](http://www.myplan.ie));
  - Historic Environment Viewer ([www.webgis.archaeology.ie/historicenvironment](http://www.webgis.archaeology.ie/historicenvironment));
  - Wicklow County Development Plan 2022-2028;
  - OSi Maps;
  - Aerial photography;
  - Open Streetmaps ([www.openstreetmaps.org](http://www.openstreetmaps.org)); and
  - Information on infrastructure supplied by utility providers as identified in this Chapter.

## Infrastructure

### Roads

- 11.45 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.
- 11.46 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 3.8 km 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.
- 11.47 Traffic travelling to the site from the south turns off R772 Regional Road (the former N11 National Primary Road) at the Junction 18 Coffee Shop and Green Angel premises (the former 'Tap' Restaurant) at Kilbride and travels north-westwards along the L1157 Local Road up to the quarry entrance.
- 11.48 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 material recovery / recycling and inert landfilling activities at Ballinclare Quarry.

### Water Supply

- 11.49 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.

- 11.50 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.
- 11.51 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 is directed to the water management system for the traffic queuing area. Water from the quarry sump is pumped to a water tank and used for dust suppression purposes.
- 11.52 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

- 11.53 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.
- 11.54 Electricity will provide the principal source of energy for office lighting and heating at the proposed materials recovery / recycling facility and inert landfill and will power any fixed plant or equipment. There is an existing connection to the electricity distribution network and a transformer at the former concrete / asphalt processing area in the south-eastern corner of the site which will remain in place for the duration of the planned waste activities.
- 11.55 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).
- 11.56 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.
- 11.57 A sub-surface concrete wastewater tank will be installed beside the existing treatment unit to provide supplementary wastewater holding capacity during busy periods when there are additional staff based on site. The holding tank will be emptied regularly as required by an external waste Contractor and sewage brought for treatment to a nearby municipal wastewater treatment plant.
- 11.58 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. It is understood that high-speed fibre optic broadband infrastructure is available locally and that the application site can be readily connected to it. Email and broadband connections to the site office will be provided via fibre broadband or a 5G mobile phone network.

## Settlements and Housing

- 11.59 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 is at the village of Glenealy, located approximately 2.5 km to the north of the application site.

## Local Enterprise

- 11.60 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 (e.g. a yoga studio in the property immediately north of the application site, craft or horticultural based businesses).
- 11.61 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 in over 15 years.
- 11.62 At a greater distance, the Junction 18 coffee shop and Green Angel skincare business is located at the premises of the former 'Tap' Restaurant approximately 2.2km to the south-east in Kilbride, at the junction of the L1157 Local Road and R772 Regional Road.
- 11.63 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 1 km to the southwest of the site. The location and extent of adjoining enterprises are shown on the land use map provided in Figure 11-1.

## Waste Management

- 11.64 Ballynagran Landfill Ltd. currently operates a non-hazardous waste landfill at a site located approximately 3 km to the northeast of the application site, in Ballynagran townland. The landfill site is accessed via a T-junction located 200m west of the grade separated junction with the M11 at Coolbeg (Junction 18, beside the Beehive pub).
- 11.65 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.
- 11.66 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).
- 11.67 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. As the landfill site is due to close in 2026 (in line with the extension of planning permission) and the current development proposals for Ballinclare Quarry do not include the L1113 as a designated haulage route, it is considered no potential conflict or cumulative impact arises between the two waste facilities.
- 11.68 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<sup>2</sup> 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.

<sup>2</sup> 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

- 11.69 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.
- 11.70 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 require to be removed off-site by licensed contractors for recovery or disposal at authorised waste recovery facilities and decommissioned / dismantled in advance of commencing on-site material recovery / recycling and inert landfilling activities.

## Existing and Future Land Use

- 11.71 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.
- 11.72 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

- 11.73 There are 15 potentially sensitive properties located within 500m of the application site boundary, with a further 22 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 approximately 30m from the south-western property boundary, close to the T-junction between the L1113 and L1157 Local Roads (Ref. R1 and R2);
  - Three properties located approximately 30m to 200m 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. R4, R5 and R6);
  - A property located approximately 200m beyond the ridgeline which delineates the northern property boundary (Ref. R7);
  - A property located approximately 250m beyond the eastern property boundary, close to the right (eastern) bank of the Kilmacurragh Stream Ref. R8).
- 11.74 There are no schools, churches, shops 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 located more than 1km beyond the application site boundary.

# IMPACT ASSESSMENT

## Evaluation Methodology

- 11.75 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.
- 11.76 Should the proposed materials recovery / recycling facility and inert landfill operate at full capacity, at a maximum intake rate of up to 600,000 tonnes per annum, it is expected to generate an average of 18 to 20 individual HGV / truck movements to or from the application site every hour. Note that these traffic levels take account of the backloading arrangements which will be implemented for off-site transfer of any recycled aggregates produced on site,

## Infrastructure

### Construction and Operational Stage Impacts – Roads

- 11.77 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 return trips per day).
- 11.78 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).
- 11.79 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 materials recovery / recycling facility and inert landfill 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

- 11.80 On completion of recovery/ recycling, 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

- 11.81 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.
- 11.82 A comprehensive groundwater well survey has been undertaken in order to understand and prevent potential for impacts on local groundwater supply wells at local residential properties. A detailed assessment of surface water and groundwater risks and measures to mitigate potential impacts is outlined in Chapter 7 (Water) of this EIAR.
- 11.83 There will be no impact on water supply arising from construction works given the lack of public or private supply pipe infrastructure in the area. The existing arrangements at the application site in relation to potable and process water will remain in place.

### Post-Operational Stage Impacts – Water Resources

- 11.84 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. There will be no long-term requirement for a water supply to the site.

### Construction and Operational Stage Impacts - Utilities

- 11.85 The proposed recovery / recycling and landfilling activities at the former quarry are not likely to give rise to any short-to-long term impacts on services / utilities.
- 11.86 Any electrical power supply required at the proposed 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.



- 11.87 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.
- 11.88 There is no gas infrastructure in or around the application site. The closest Gas Networks Ireland (GNI) infrastructure<sup>3</sup> is a high-pressure transmission pipe located approximately 7.75 km to the north.
- 11.89 Telecommunications cables<sup>4</sup> run along the L1157 Local Road and these will be avoided as per standard construction best practice described above in relation to electricity infrastructure. A fibre-optic cable may be installed between the existing site offices and a local connection point on the existing overhead cable network to provide a broadband service to the proposed development. Employees at the site will also use mobile telephones to connect to telecommunication networks.

## Post-Operational Stage Impacts- Utilities

- 11.90 On completion of landfilling and restoration activities, there will be no long-term risk presented to existing utilities / services around the application site, nor will there be a requirement for introduction of services to the site.

## Waste

### Construction and Operational Stage Impacts

- 11.91 Prior to commencement of the proposed recovery / recycling activities and inert landfilling operations, 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.
- 11.92 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.
- 11.93 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.
- 11.94 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.
- 11.95 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.
- 11.96 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 proposed recovery / recycling, landfilling and final restoration activities at the application site 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.

<sup>3</sup> <https://www.gasnetworks.ie/home/safety/dial-before-you-dig/dbyd/>

<sup>4</sup> <https://cei.openeir.ie/emaps/#/map/52.936443,-6.133406,17z>



- 11.97 In relation to submissions from local residents that importation of C&D materials from as far afield as Dublin will result in excessive road miles (and therefore excessive CO<sub>2</sub> emissions), it is important to emphasise that materials are currently being driven through the county and further south to Wexford for recovery through backfilling and/or disposal on land, thereby accounting for more road miles than those which would be generated were the same materials be brought to Ballinclare. Reductions in carbon emissions would also be achieved by recovering aggregates at the application site and deploying backloading systems to transfer them to production facilities or construction sites rather than transporting conventional virgin aggregates from ever more distant extractive sites.
- 11.98 The inert landfill facility at the application site has an import requirement for approximately 6,500,000 tonnes of soil and stones over the projected life of the development. In a scenario where all non-waste by-product and inert waste intake was directed to the inert landfill for deposition, the landfill would be backfilled in a minimum of 10.5 years.
- 11.99 However given that the focus of this development is to maximise materials recovery and re-use, this scenario will not arise and it is envisaged that, on average, between imported inert waste, filter cake material generated on site and soil by-product materials used for landfill engineering purposes, the average intake to the landfill will be of the order of 300,000 to 400,000 tonnes per annum. This in turn suggests an operational lifespan of between 16.25 and 21.5 years for the proposed inert landfill facility.

## Post-Operational Stage Impacts

- 11.100 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 therefore have any effect on local waste generation or waste management needs over the longer-term.

## Property Receptors

### Construction and Operational Stage Impacts

- 11.101 The proposed development of a materials recycling / recovery and inert landfill 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.
- 11.102 Implementation of the planned measures will ensure that the residual effects of the proposed development on nearby properties during recovery / recycling, inert landfilling, and restoration activities at the application site are acceptable and not significant.
- 11.103 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 (e.g. 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

- 11.104 The effects of the proposed development on nearby properties and rural based enterprises will cease on completion of recovery / recycling, inert landfilling and restoration works at the application site.
- 11.105 When the landfill landform is complete and restored to long-term native woodland habitat, the higher, more visually prominent areas of the application site will 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.

- 11.106 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

- 11.107 The proposed landfilling and restoration activities at 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 in keeping with existing land-use in the surrounding area.
- 11.108 The materials recovery / recycling and inert landfilling activities 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

- 11.109 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)”*.
- 11.110 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, processing, recovery, landfilling and restoration activities;
  - the inert nature of the materials to be disposed of and recovered on-site and the relatively rural location of the proposed activities;
  - 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.
- 11.111 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; and
  - flooding.
- 11.112 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

- 11.113 Cumulative impacts are those which result from incremental changes caused by other past, present or reasonably foreseeable actions, together with those generated by the proposed development. Therefore, the potential impacts of the proposed development cannot be considered in isolation but must be considered in addition to impacts already arising from existing or planned development.

- 11.114 A review of Wicklow County Council's online planning portal and An Bord Pleanála case files identifies six prospective development projects within a 5km radius of the application site which have either applied for or have been granted planning permission. Of these one (a sand and gravel pit) is for substitute consent and another (for land raising) is for an extension of time which means that development impacts associated with them are already extant and would therefore be reflected in baseline environmental surveys.
- 11.115 Of the remaining projects, one (WCC Planning Ref. 23/60497) is located 2 km south-east of the application site and relates to a land raising project, which envisages importation of a maximum of 24,000 tonnes of soil per annum for a maximum of two years. In light of the limited time duration and the fact that it is unlikely to involve the use of the same local roads as the proposed development at Ballinclare Quarry, it is considered that there is no potential for cumulative effects with this project.
- 11.116 The remaining three projects are all considered either too small in scale or too distant from the application site to generate any potential adverse cumulative effects for any material assets.
- 11.117 As previously noted, planning permission for the existing landfill facility at Ballynagran was extended by five years from 2021 to 2026 (by Planning Ref. 20/21). As all environmental impacts associated with the Ballynagran facility are well established, they are deemed to be included or reflected in the findings / measurements obtained by baseline surveys undertaken for the purposes of this environmental impact assessment. These impacts will remain in existence and no further change is likely to arise in the local environment. As such, no cumulative impacts with that development need to be assessed or considered.
- 11.118 Taking a wider perspective, with continued economic growth, there is likely to be a general increase in HGV traffic levels generated by other development across the region and this will contribute to incremental increases in traffic volumes over time. The implications for road capacity and traffic safety are considered separately in Chapter 14 (Traffic) of this EIAR. The traffic assessment concludes that the proposed development will not have any likely significant adverse impact on the local road network over the lifetime of the project.

## Transboundary Impacts

- 11.119 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

- 11.120 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'

- 11.121 In a "do nothing scenario", the proposed materials recovery / recycling, inert landfilling and site restoration activities would not proceed at the application site and the bare, disturbed landform which currently exists across the site would remain largely unchanged, with some vegetation cover becoming established in places over time. This would result in no significant adverse impact in relation to existing material assets, specifically infrastructure, utilities, waste or land-use.

- 11.122 However, the site would not be used to maximum advantage and the opportunity would be missed to re-use land for infilling with inert waste and to restore a former mineral extraction site in the process area. An opportunity would also be lost to deploy established site infrastructure to address evolving policy objectives around re-use of construction and building wastes and facilitate the transition to a circular, sustainable, economy.

## MITIGATION MEASURES

### Construction and Operational Stage Impacts

- 11.123 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

- 11.124 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

- 11.125 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 on materials assets is anticipated.

### Post – Operational Stage

- 11.126 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 on materials assets is anticipated.

## MONITORING

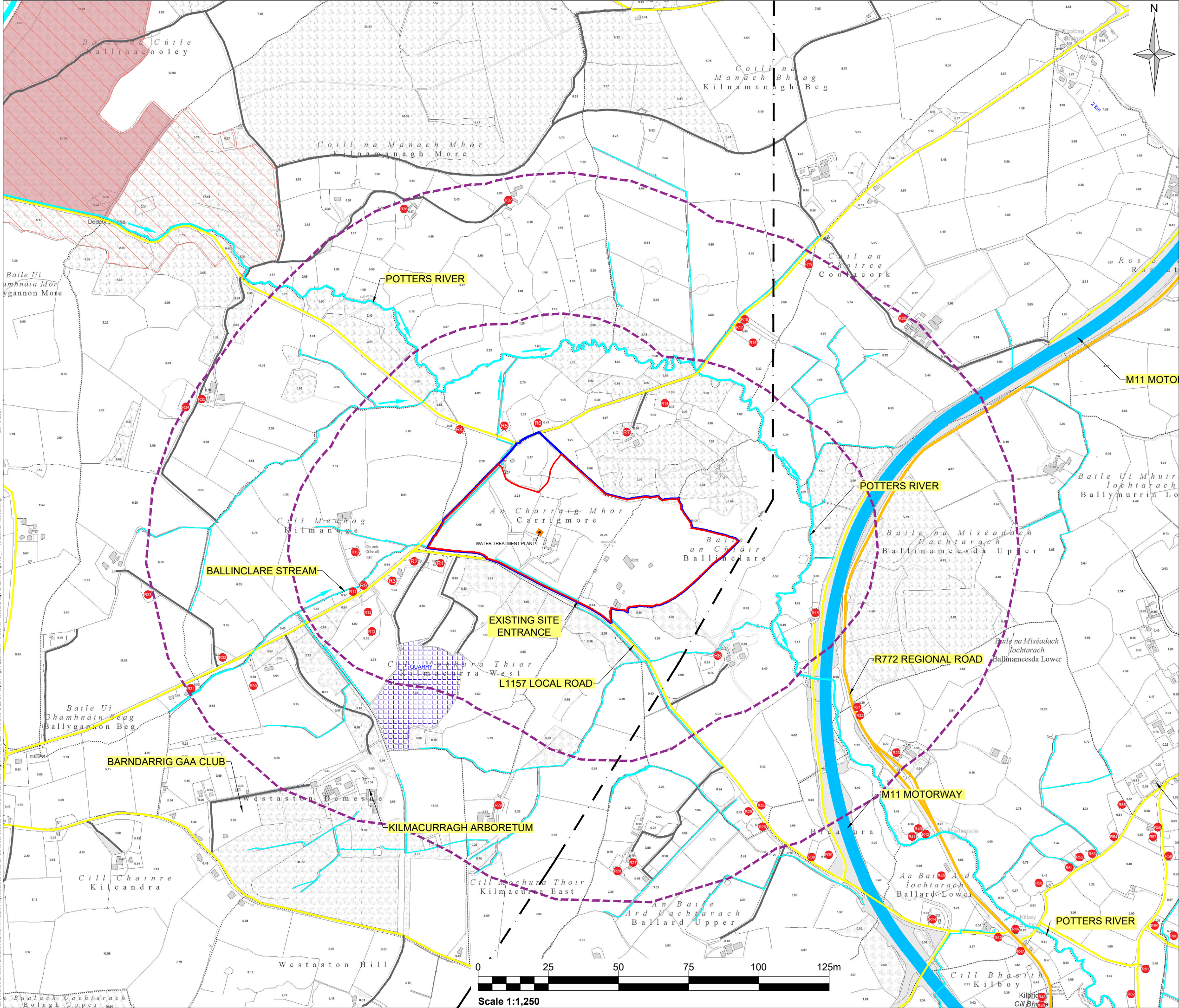
- 11.127 Monitoring, over and above those proposed for environmental emissions in other Chapters of the EIAR, is not required or proposed specifically in respect of material assets.

**FIGURES**

**Figure 11-1  
Surrounding Land Use**







**Notes:**

- EXTRACT FROM ORDNANCE SURVEY 1:2,500 / 1:5,000 MAP SERIES: 4137-B & 4137-D.
- EXISTING SITE SURVEY (MAY 2016) PROVIDED BY KILSARAN CONCRETE.

**Legend:**

- LAND INTEREST BOUNDARY (c. 36.0 HA)
- PLANNING APPLICATION AREA (c. 32.6 HA)
- 500m / 1km OFFSET FROM PLANNING APPLICATION AREA
- RESIDENTIAL LOCATION WITHIN 1KM OF PLANNING APPLICATION AREA
- 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

| Rev | Amendments | Date | By | Chk | Auth |
|-----|------------|------|----|-----|------|
|     |            |      |    |     |      |

**SLR**

www.slrconsulting.com

Drawing Status & Suitability Code

**FINAL**

Client

**KILSARAN CONCRETE**  
Ballinclare Quarry, Kilbride, Co. Wicklow.

Project

**Environmental Impact Assessment Report**  
Materials Recovery / Recycling Facility  
and Inert Landfill

Drawing Title

**MATERIAL ASSETS**

|                |             |       |                 |              |
|----------------|-------------|-------|-----------------|--------------|
| Scale          | 1:1,250     | @ A3  | SLR Project No. | 065366.00001 |
| Designed       | EW          | Drawn | EW              | Checked      |
|                |             |       |                 | DL           |
| Date           | 10/24       | Date  | 10/24           | Date         |
|                |             |       |                 | 10/24        |
| Drawing Number | FIGURE 11-1 |       |                 | Rev.         |
|                |             |       |                 | 2            |