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Figure 11-1: Site Location Map

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Introduction

- 11.1 This Chapter of the Environmental Impact Assessment Report (EIAR), prepared by SLR Consulting Ireland Ltd, addresses the potential effects of a new sand and gravel operation on material assets. The proposed pit is located at Derryarkin townland, Croghan, Rhode in Co. Offaly.
- 11.2 The application site is shown in the context of its strategic location is shown on EIAR **Figure 1-1**. Rochfortbridge (Co. Westmeath), c. 4.5km northwest and Rhode (Co. Offlay), c. 5km southeast of the application site, are the closest small towns. The regional towns of Tullamore (County Offaly) and Mullingar (County Westmeath) are located c. 17km southwest and c. 18km northwest, respectively. The closest church, school and community centre to the application site are at the settlement of Croghan, c. 3.5km southwest.
- 11.3 Junction 3 of the M6 motorway is approximately 3.5km north of the application site, measured in a straight line (and c. 6km via road). Junction 3 provides motorway access from the R400 regional road that links the towns of Mullingar and Portarlinton. The site occupies a strategic location in the midlands region and is immediately accessible to a number of national and secondary routes including the M6, M4, R400, R446 and R148 making it widely accessible for the urban centres of Athlone, Mullingar and Tullamore.
- 11.4 The proposed extraction development will be accessed along the northern application site boundary via an existing site entrance and access road. This existing local road provides access into the BD Flood's existing concrete batching plant (northwest of the application site and within the existing Kilsaran Derrycoffey sand and gravel extraction site) and Skeagh Farm piggery.
- 11.5 The Yellow River windfarm is a 29 turbine wind farm which has recently been constructed in the wider rural area spanning from c. 2km in the northwest to c. 8km in the northeast. Turbine T7 of the windfarm has been built directly to the north of the application site.
- 11.6 The application site is a former cutaway bog, which has been reclaimed for agricultural use. It has a thin layer of residual organic rich clay material remaining, below which there are reserves of sand and gravel (and mostly below the underlying water table). The wider area surrounding the application site was dominated by previous peat extraction and associated energy production, which has been phased out in a shift towards more sustainable energy sources.
- 11.7 The planning application seeks to recover the significant quantities of sand and gravel aggregate underlying the site to provide a secure and local aggregate supply to the adjacent BD Flood concrete batching plant.
- 11.8 Within the redline application area (c. 19.5 hectares) the site consists of poorly drained and open agricultural lands. There are no internal hedgerows or trees within the proposed sand and gravel extraction area of c. 11.7 hectares.
- 11.9 The proposed development being applied for under this planning application will consist of:
- An overall application area of c. 19.5 hectares;
 - Phased extraction of sand and gravel (wet working) over an area of c. 11.7 hectares with processing that includes crushing and screening and all ancillary works and structures;
 - Provision of new site facilities to include wheelwash (c. 35m²), weighbridge (c. 69m²); mobile welfare pod facility (c. 16m²) consisting of office, canteen, toilet and drying room; dedicated parking area, perimeter vegetation planting and fencing.

- Access to the site will be via an existing entrance onto the local access road to the north of the site;
 - Progressive restoration of the site to naturally regenerated wildlife habitat and a permanent water body;
 - The proposed development life is for 15 years to complete extraction and restoration operations.
- 11.10 The total aggregate reserve within the extraction area is estimated to be c. 1.4 M tonnes. It is proposed that extraction would be carried out over a 14-year period at a maximum output rate of 100,000 tonnes per annum.
- 11.11 The sand and gravel will be processed on site to produce a range of aggregates with the majority used in the nearby existing BD Flood concrete facility located just over 600m northwest of the proposed development, and the balance distributed to their other sites in the region. The concrete manufactured at the concrete facility is critical to the regional construction supply chain where there is a widely acknowledged deficit of aggregates (see EIAR **Chapter 3**).
- 11.12 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

- 11.13 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”.*
- 11.14 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.
- 11.15 The more recently published EPA guidelines in relation to the preparation of EIAR¹ 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.”*
- 11.16 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.
- 11.17 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 land use, built services and waste management. Built services are understood to refer to electricity, telecommunications, gas, water supply infrastructure and sewerage.

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

Consultations / Consultees

- 11.18 In preparing this Environmental Impact Assessment Report an initial pre-planning consultation meeting was requested from Offaly County Council (OCC) on 17 July 2024. A pre-planning meeting (Ref: ED2423) was held via MS Teams on 12 September 2024, which included representatives from the OCC Planning Department and Edenderry Municipal District Office, the applicant and SLR, as agent.
- 11.19 The applicant explained the details of the proposed planning application. OCC officials advised of relevant planning policies to be considered in the planning application documentation and requested that the assessments considered the extent of development ongoing in the surrounding area. They also requested clarity in the assessment of significant impacts and proposed mitigation. Officials from the Environment section of the Council had provided direction to their planning colleagues in relation to assessments they require such as Flood Risk Assessment. A traffic impact assessment (provided in EIA Chapter 14) was requested, which should set out HGV movements associated with the proposed development on the local road network.
- 11.20 In addition, a pre-planning consultation document was issued to statutory consultees on 22 January 2025. Details of those consulted and feedback obtained is contained in Chapter 1 of this EIA.
- 11.21 Feedback of most relevance to the assessment of material assets was received from Uisce Éireann (formerly Irish Water), which stipulated required measures to ensure the protection of supply and protection of public water supplies. The means by which these measures have been incorporated into the proposed development are described in Chapter 7 of this EIA. The Department of Housing, Local Government and Heritage (DHLGH) made recommendations in relation to archaeological investigations, which are described in Chapter 12 of the EIA. Recommendations in relation to ecological assessments relevant to the site were also made by DHLGH and Inland Fisheries Ireland and are addressed in EIA Chapter 5 and EIA Chapter 7. A standard reply was received from Transport Infrastructure Ireland. Geological Survey Ireland provided a response which is incorporated into EIA Chapter 6. The Health Service Executive (HSE) provided general advice on the scope of the EIA which has been considered within each of the respective chapters.
- 11.22 Infrastructure maps were also requested and received from ESB Networks, Uisce Éireann, Éir and Gas Networks Ireland.

Contributors / Author(s)

- 11.23 This assessment has been carried out by Lynn Hassett, an Associate with SLR Consulting Ireland. Lynn is an EIA co-ordinator with a BSc in Applied Ecology (2000) and a MSc in Environmental Impact Assessment (2001). She has 18 years of experience in EIA across the not-for-profit, public and private sectors in the UK and Ireland. She has worked on both the review of EIA on behalf of planning authorities assessing applications and in the production of them to support planning applications being lodged. She is a Practitioner member of the Institute of Environmental Management and Assessment, which she is a member of since 2001. She is also a Full Member of the Institution of Environmental Sciences, which she joined in 2023.

Limitations / Difficulties Encountered

- 11.24 No limitation or difficulties were encountered in the preparation of this Chapter of the EIA.

Regulatory Background

Guidelines and Technical Standards

- 11.25 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).
- 11.26 There are no technical standards relevant to this Chapter of the EIAR.

Legislation

- 11.27 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); and
 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Planning Policy and Development Control

- 11.28 This Chapter of the EIAR is informed by the National Planning Framework (NPF) 2040² and the Offaly County Development Plan 2021 - 2027 (OCDP). Within the relevant topic chapters, the Offaly CDP sets out commitments to ensure the strategic protection and provision of built service infrastructure throughout the Plan.
- 11.29 Section 3.4.1 of the OCDP recognises that the phasing out / transition away from peat-fired electricity generation will have a severe impact on workers and communities in the midlands given the past history of heavy reliance on this industry for jobs in the region.
- 11.30 In recognition of this impact, the Government has committed to providing a 'Just Transition' for those affected, establishing a Just Transition Fund, which will support the retraining and reskilling of workers, provide for bog restoration and rehabilitation and deliver housing upgrades in these communities. In addition, a Just Transition Commissioner has been appointed to help ensure a coordinated and effective approach to the challenges. There is a recognised need to secure a range of employment opportunities for those that have been displaced from traditional peat associated industry.
- 11.31 Section 5.7 of the OCDP includes construction and quarrying as amongst the enterprises that have potential to ensure the rural area remains and strengthens as a living and working community.
- 11.32 The Offaly CDP sets out commitments to ensure the strategic protection and provision of built infrastructure in the County. Chapter 5 'Economic Development Strategy' includes 'post peat' opportunities as one of the key initiatives to be developed in the County.
- 11.33 The Rhode Green Energy Park (GEP) (c. 3.5 km southeast of the application site) is being developed as an objective of the Council (ENTO-19). It has been established on the site of a former ESB Power Station and occupies approximately 5.3 ha with 13 serviced sites. The area has a strong heritage in energy production and is already home to a number of consented renewable energy generation proposals and facilities in the shape of wind, solar and flywheel battery storage. With the significant development of the business park infrastructure(s) in place and various energy related infrastructure and prospective

² Final Draft Revision to the National Planning Framework (issued April 2025)

- developments nearby, Offaly County Council has identified the potential for a Green Energy Park at this location which can be a national exemplar of the transition from a historical dependency on fossil fuels to sustainable energy and energy innovation. Table 5.3 of the OCDP sets out a vision for shared service infrastructure at the site, with the possibility of expanding the infrastructure networks (such as electricity and wastewater) to adjoining lands in future. Table 5.5 of the OCDP identifies the future infrastructure requirements to facilitate development of the Green Energy Park.
- 11.34 Chapter 4 of the OCDP recognises the universal acceptance that worked out quarries and pits have potential as rich biodiverse habitat and nesting sites, and the Council encourages operators to consult with the Irish Concrete Federation (ICF) and the National Parks and Wildlife Service (NPWS) document “*Guidelines for the Protection of Biodiversity within the Extractive Industry*” which advises how biodiversity enhancements can be made through such proposed projects.
- 11.35 The Development Management Standards (DMSs), against which specific planning applications will be assessed, are set out in Chapter 13 of the OCDP. The relevant utility service upgrades that may be required for specific development types are referenced within respective DMSs, as appropriate. Section 13.9.15 sets out the Council’s requirements in relation to proposals with a Waste Management element.

Significant Risks

- 11.36 The proposed development is a relatively conventional project providing for the extraction of sand and gravel with onsite processing. The project will use established industry methods, to be implemented by a proven operator, and in a remote area with a history of similar activities.
- 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 proposed operation is located in a rural area which was a working bog up to c. 1985 to 1990 and subsequently reclaimed for agricultural use, for which it is still in use. The area surrounding the proposed application area largely comprises cutaway bog, existing sand and gravel extraction areas and forestry, with few dwellings in the immediate vicinity.
- 11.39 The sand and gravel will be processed on site to produce a range of aggregates with the majority used in the nearby existing BD Flood concrete facility located just over 600m northwest of the proposed development, and the balance distributed to their other sites in the region. The proposed development will benefit from the existence of the entrance onto the local access road that already serves this development.
- 11.40 The proposed development period sought (14 years for extraction / processing operations and 1 year for restoration) is for a total period of 15 years.
- 11.41 There are few residences in the immediate vicinity of the application site. Dwellings in the vicinity are generally located along the local road network and comprise isolated farm dwellings and one-off housing developments. The nearest dwellings to the application site boundary are identified on EIAR **Figure 11-1**. The closest property is located 150m southwest of the application site, with one further property within c. 500m of the application

- site, at 230m southwest. In total there are 5 residential properties within a 1km radius of the application site.
- 11.42 The application site is not subject to any statutory or non-statutory nature conservation designations, with such sites located at Grand Canal pNHA [002104] c. 5km south; and Raheenmore Bog SAC & pNHA [000582] c. 5.2km southwest of the site.
- 11.43 Existing land use and residential development in the vicinity of the application site is shown in **Figure 11-1**.

Study Area

- 11.44 For the purposes of this assessment, the study area principally comprises the application site and its immediate surrounds to within a 1 km radius. The study area was selected to ensure that all built service infrastructure within the surrounding area of the application site was identified and to ensure that any associated structures or inter-reliance in the immediate surrounding area were considered if appropriate.

Baseline Study Methodology

- 11.45 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

- 11.46 All baseline information which was 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);
 - Offaly County Development Plan 2021-2027;
 - OSi Maps;
 - Aerial photography;
 - Open Streetmaps (www.openstreetmaps.org); and
 - Information on infrastructure supplied by utility providers as identified in this chapter.

Land Use

- 11.47 The application site is categorised as an Agricultural Area, with land principally occupied by agriculture with significant areas of natural vegetation. Further in the south are lands classified as agricultural pastures. The area to the northwest, which is the location of the concrete batching plant that will receive the aggregates from the application site is classified as Artificial Surfaces, mineral extraction site. Surrounding cut away bogs are classified as inland wetlands. There is a mix of planted and natural woodland interspersed in the area surrounding the site.

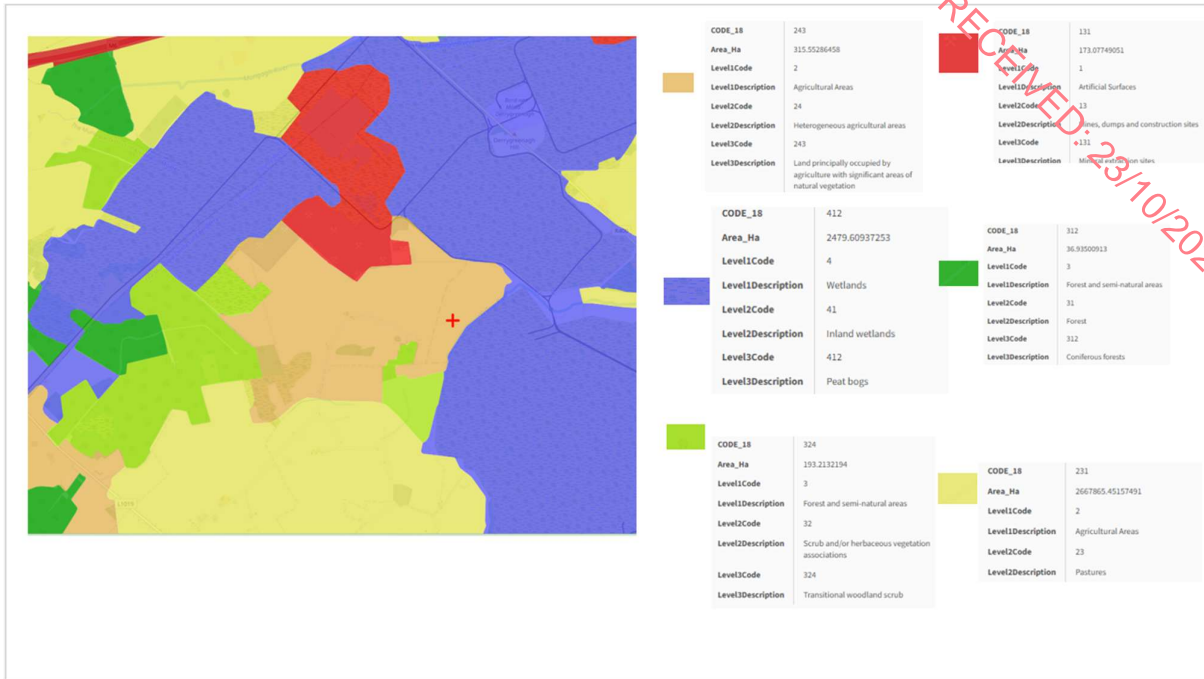


Plate 11-1: Corrine (2018) Land Use Categorisations

11.48 The application site is zoned as a 'Stronger Rural Area' in the OCDP.

Infrastructure

Roads

- 11.49 The proposed extraction development will be accessed along the northern application site boundary via an existing site entrance and local access road. The existing local road provides access into the BD Flood's existing concrete batching plant (northwest of the application site and within the existing Kilsaran Derrycoffey sand and gravel extraction site) and Skeagh Farm piggery.
- 11.50 The local access road is linked 2km to the northeast of the proposed sand and gravel pit to the R400 regional road. The R400 is a two-way single carriageway which is approximately 6.5m wide. The road is approximately 40km in length and extends from Mullingar to Portarlinton in a north-south direction.
- 11.51 Junction 3 of the M6 motorway is approximately 3.5km north of the application site, measured in a straight line (and c. 6km via road). Junction 3 provides motorway access from the R400 regional road that links the towns of Mullingar and Portarlinton.
- 11.52 The site occupies a strategic location in the midlands region and is immediately accessible to a number of national and secondary routes including the M6, M4, R400, R446 and R148 making it widely accessible for the urban centres of Athlone, Mullingar and Tullamore.

Water Supply

- 11.53 A data request from Uisce Éireann in relation to water infrastructure was made and a map was returned from them in January 2025 showing a mains water supply along the local road network to the west and wider southwest of the application site, see **Plate 11-2**. The image shows the water mains reaching the southwestern corner of the application site and suggests that it provides a supply to R1, R2, R3, R4 and R5 indicated on **Figure 11-1**.

11.54 Uisce Éireann have confirmed that they hold no information about waste network in the area.

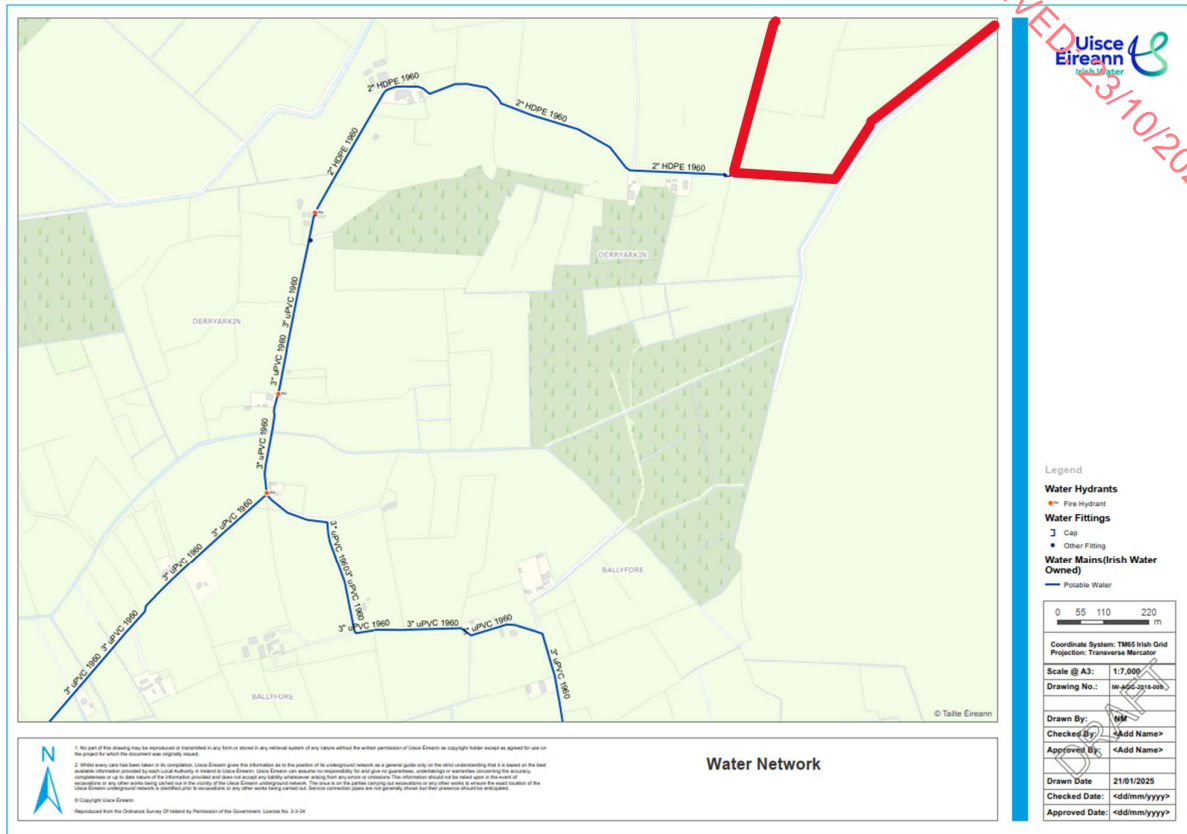


Plate 11-2: Mains Water Supply in vicinity of the Application Site (Uisce Éireann)

11.55 The application site itself does not currently have any water supply (private or public) or wastewater system in place as there has not been a requirement for same to date.

Site Drainage

11.56 The existing agricultural lands are currently drained by percolation down through the soil and sub-strata to the groundwater table. There is a shallow cut drainage channel along the northern application boundary running in a west to east direction towards the unnamed stream.

Utilities

11.57 Following a request to ESB Networks for information on the electrical supply network in the local area of the application site, a map was received in January 2025. See **Plate 11-3** below.

11.58 The map shows a medium voltage 10KV/20KV overhead line which serves the residences in the west / southwest and extends to the existing concrete batching plant run by BD Flood and Skeagh Farms Piggery.

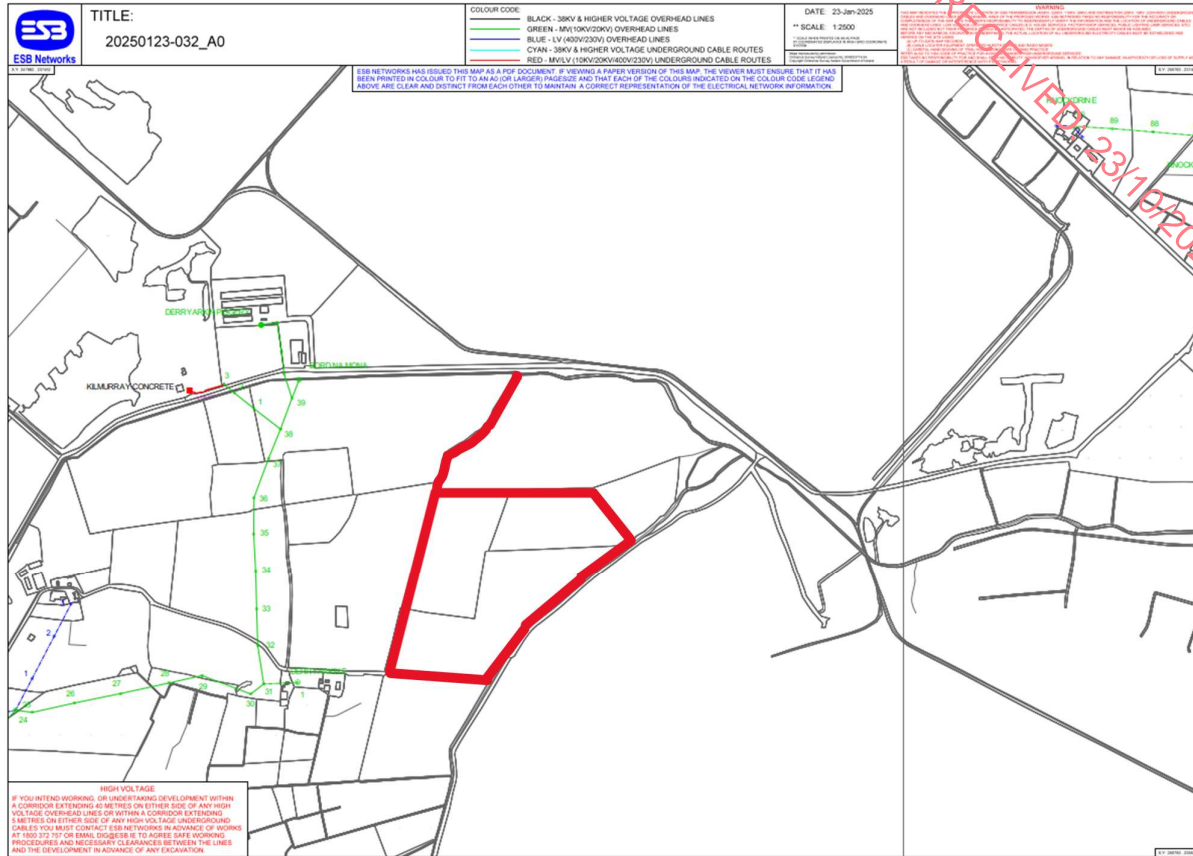


Plate 11-3: ESB Infrastructure surrounding the Application Site (ESB Networks)

11.59 OpenEir Civil Engineering mapping indicates that there is telecommunications infrastructure running along the local road network and into the pit along the internal local access road, see **Plate 11-4** below.

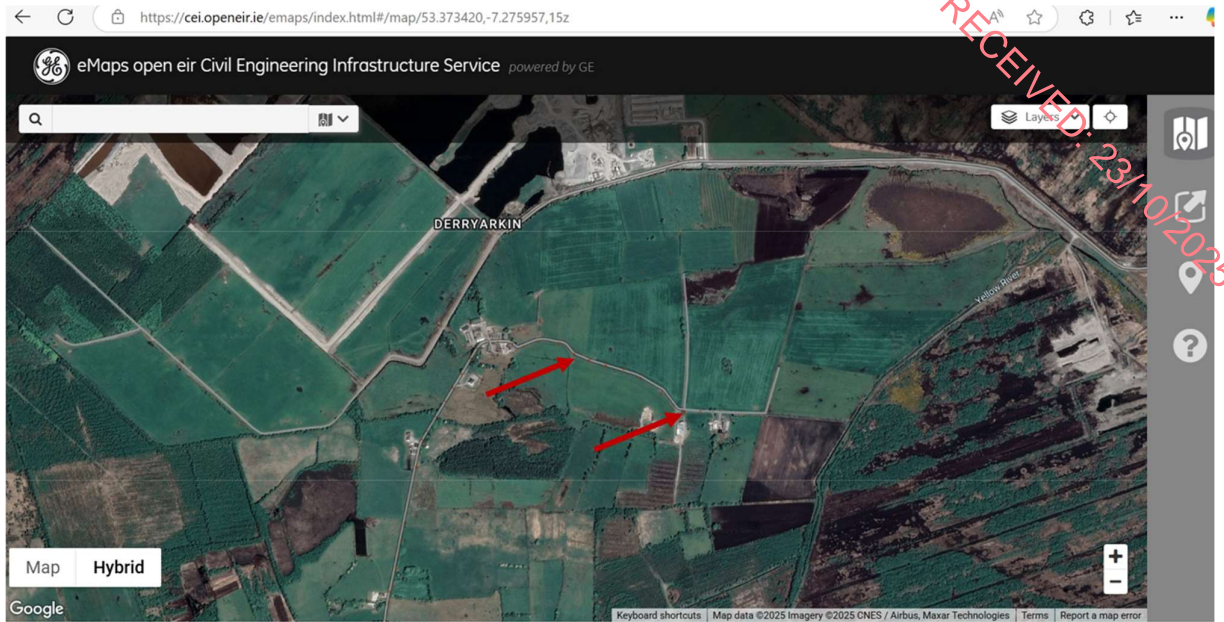


Plate 11-4: Screen Grab of Eir Civil Engineering Infrastructure

11.60 According to Gas Networks Ireland (GNI) mapping, there is no gas infrastructure close to the application site. The closest infrastructure is a high transmission gas pipeline, which runs in a north-south direction c. 5 km north of the application site, see **Plate 11-5** below.

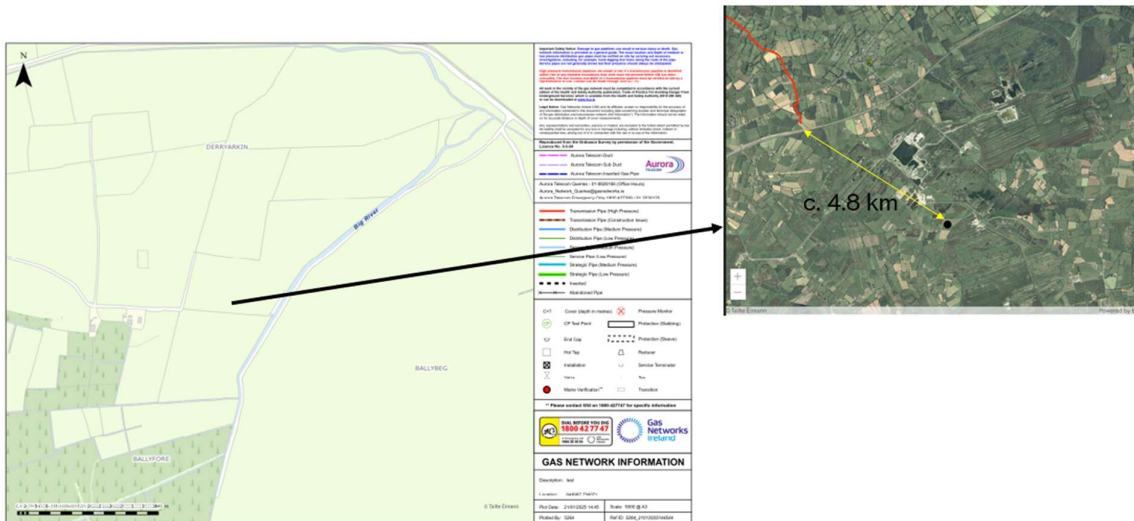


Plate 11-5: Screen Grab of GNI Infrastructure near Application Site

Settlements and Potential Receptors

11.61 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 settlement clusters are

- Croghan, c. 3.5km southwest, Rochfortbridge (Co. Westmeath), c. 4.5km northwest and Rhode (Co. Offlay), c. 5km southeast of the application site.
- 11.62 There are no schools, churches, playing grounds or any other community infrastructure in the vicinity of the application site. The closest school is Croghan National School c. 3.5km southwest of the site.

Local Enterprise

- 11.63 Farm based businesses and forestry are the principal sources of economic activity in the area surrounding the application site. Google maps also show a number of small home and farm based rural enterprises operating out of local residential properties in the area.
- 11.64 The principal tourism / amenity resources in the local area are linked to heritage and walking trails such as the Croghan Hill walking trail and the Grand Canal Greenway. The natural landscape, waterways and scenery in the surrounding area in general are a tourism draw.

Waste Management

- 11.65 There is minimal waste currently arising at the application site in its agricultural state. Any waste arisings are managed through the operator's domestic waste arrangements.

Impact Assessment

Evaluation Methodology

- 11.66 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 chapters 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.

Land Use

Construction and Operational Stage Impacts

- 11.67 The proposed sand and gravel pit is considered to be in keeping with the zoning as within a 'Stronger Rural Area'. Agricultural use of the parts of the site not being extracted will continue during phasing of the proposed works.

Post-Operational Stage Impacts

- 11.68 The proposed restoration scheme envisages that the worked-out area will ultimately be reinstated to a landscaped lake, interspersed with constructed peninsulas, capable of supporting new habitat.
- 11.69 The principal activity which will be undertaken at the application site is the extraction of the in-situ sand and gravel, with ultimate restoration of the overall application site to a natural wildlife and biodiversity diverse habitat, which is a beneficial after use listed in the EPA Guidelines: 'Environmental Management in the Extractive Industry' (2006). The restoration works will be carried out in accordance with the EPA Guidelines (2006). Ecological advice will also be incorporated into the restoration process to facilitate future habitat value in the area for biodiversity.

Infrastructure

Construction and Operational Stage Impacts – Roads

- 11.70 The construction stage is likely to equate to similar activities to those to be carried out through the extraction phase, hence the same level of traffic generation has been assumed during the 6 month construction period.
- 11.71 The proposed development will generate traffic movements over the existing public local road network with an average of 27 two-way trips per day (19 of which would be HGV trips) to and from the site.
- 11.72 The existing road network and the proposed haul route has demonstrated its ability to support comparable levels of HGV traffic to and from the existing concrete batch to date and the proposed development will, in effect, reduce the amount of HGVs on the wider road network. In addition, the proposed development will benefit from the existing site access and local road servicing the existing concrete batching facility.
- 11.73 An assessment of likely development impacts on the local road network, presented in Chapter 14 (Traffic) of this EIAR, concluded that the development will have an imperceptible impact on traffic flows on the existing road network.

Post-Operational Stage Impacts – Roads

- 11.74 On completion of extraction and final restoration activities at the site, there will be a return to existing HGV traffic movements over the local road network leading to and from the application site, as the concrete batching plant will continue to operate and the aggregate materials will once again be imported from external BD Flood sites.

Construction and Operational Stage – Water Resources

- 11.75 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.
- 11.76 A comprehensive programme of borehole investigations was undertaken as part of the EIA assessment works in order to understand and conceptualise the regional groundwater regime. A detailed assessment of surface water and groundwater risks and measures to mitigate potential impacts are outlined in Chapter 7 (Water) of this EIAR.
- 11.77 Best practice construction management measures will be followed to ensure that the location of underlying water supply infrastructure (shown on **Plate 11-2**) to the west of the site is identified and protected during groundworks in the western portion of the application site.
- 11.78 Drinking water will be imported to site through bottle supply.
- 11.79 As set out in Chapter 2, a mobile welfare pod (office, canteen, toilet) will be provided under contract with a specialist provider. The welfare pod will be a fully self-contained unit which is regularly serviced by the provider to refill the clean water tank for washing and hygiene purposes. The provision of a serviced welfare pod (with toilet) on site will negate the requirement for installing a septic tank / propriety effluent treatment system. The wastewater from the welfare pod will be serviced by contract with the hire company, under its waste management licence.
- 11.80 The proposed activities at the application site will require minimal process water input. The proposed wheel wash facility will consist of a wheel bath system which will be filled and topped up via an adjacent reservoir tank, which will be supplied by a water bowser that will

- initially be sourced from the mains supply at the concrete batching plant, and subsequently sourced from the sump of adjacent working pit as required.
- 11.81 There will be no discharge of water from the application site to any surface watercourse. Therefore, no specific surface water management plan is required in respect of the proposed development. There will also be no dewatering of groundwater for the proposed sand and gravel extraction activity as it will be worked 'wet' and excavated below the groundwater level at the site using mechanical long-reach excavator. There is therefore no requirement to manage any dewatered groundwater at the application site.
- 11.82 The surface water management system at the proposed site will be relatively simple. Rain falling across the application site will infiltrate naturally into the ground across residual areas, internal haul roads or stripped processing areas. In worked out areas it will fall into restoration ponds and become part of the surface water body.
- 11.83 Due to the high permeability of the underlying materials, little rainwater run-off is expected to arise within the application site.
- 11.84 Further details on the site water management regime are provided in EIAR Chapter 7.

Post-Operational Stage Impacts – Water Resources

- 11.85 On completion of extraction and final restoration of the pit, 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

- 11.86 The proposed extraction and restoration of the pit are not likely to give rise to any short-to-long term impacts on services / utilities.
- 11.87 Care will be taken to protect the ESB and Eir infrastructure off-site to the west that are identified on **Plates 11-3 and 11-4**.
- 11.88 Standard construction safety practices for working close to the existing overhead power lines and underground pipes/wires at the site will be implemented for all site-based operations in order to safeguard the uninterrupted supply to local service users and to ensure the health and safety of employees, hauliers and visitors. This will be done in line with statutory obligations under health and safety legislation.
- 11.89 The ancillary site infrastructure will be powered by mains electricity from the ESB's national grid via a new connection to the existing power lines in the area. This will be done in consultation with ESB Networks through standard connection arrangements and will not impact on any supply to nearby users. The proposed development will not be a heavy user of electricity.
- 11.90 Site based staff at the application site will be contactable by mobile phone, and email and broadband connections to the site office will be provided via a mobile network.

Post-Operational Stage Impacts - Utilities

- 11.91 On completion of 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.

Local Enterprise

Construction and Operational Stage Impacts

- 11.92 As set out in Chapter 4 of this EIAR, the recovery of the underlying reserves of sand and gravel will contribute towards overcoming a national scarcity of construction aggregates. It

will also provide an opportunity to replace some of the local employment lost through the transition from the peat related industry in the region.

Post-Operational Stage Impacts

- 11.93 On cessation of site activities, the proposed development will not have any effect on local enterprise over the longer-term. The land use for the application site is reversible.

Waste

Construction and Operational Stage Impacts

- 11.94 Waste management systems will be implemented to control and manage all potential waste streams, to avoid waste generation where possible and to maximise re-use or re-cycling opportunities thereafter. As stated in Chapter 2, there is no intention on behalf of BD Flood to discard, where possible, any material extracted from the proposed sand and gravel pit at Derryarkin.
- 11.95 General office and food waste produced at the site will be minimal due to the low number of workers on site and arrangements will be put in place for periodic collection of general / recyclable waste by authorised waste contractors.
- 11.96 No waste oils or batteries will be stored on site. As set out in Chapter 2, scrap metal will be stored in a dedicated area for collection by licensed scrap metal contractors.
- 11.97 The proposed development will comply with all waste management responsibilities prescribed by conditions attached to any future grant of planning permission.
- 11.98 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 extraction and final restoration works will not give rise to any significant short-to-long term effects on local waste collection / off-site waste management capacity.

Post-Operational Stage Impacts

- 11.99 On cessation of site activities, the proposed development will not have any effect on local waste generation or waste management needs over the longer-term.

Settlements and Potential Receptors

Construction and Operational Stage Impacts

- 11.100 As outlined in Chapters 8, 10 and 14 of this EIAR, a number of mitigation measures are implemented to control and minimise noise, ambient dust and traffic effects at the properties closest to the application site. The traffic impacts are likely to be reduced as a result of the proposals.
- 11.101 Implementation of the mitigation measures ensure that the residual effects of the quarry development on nearby properties during activities at the application site are acceptable and not significant. Furthermore, the application site is located in a very low residential density area.

Post-Operational Stage Impacts

- 11.102 The effects of the proposed development on nearby properties and rural based enterprises will cease on completion of restoration works.
- 11.103 The assessment of landscape and visual impacts presented in Chapter 13 of this EIAR concluded that the proposed development, while the landform will remain altered when the site is returned to natural habitat, the restored site will integrate into the surrounding landscape, in particular as the site naturally regenerates and the boundary planting

matures. As set out in Chapter 4, there is a tourism objective in the OCDP that provides for long term tourism / recreational benefits to be developed at former mineral extraction sites.

- 11.104 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.

Future Land Uses

- 11.105 Implementation of the proposed restoration plan will reinstate the application site to a natural state. The completion of these activities therefore will provide a natural landform which is in keeping with surrounding land-use. It will have potential benefits for biodiversity and local communities.
- 11.106 The proposed development 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

- 11.107 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)*”.
- 11.108 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 proposals and past experience of extraction works at the site;
 - the inert nature of the materials to be extracted and the relatively remote location of the proposed works;
 - the proven industry experience of the applicant, and previous use of similar 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.
- 11.109 Unplanned events in relation to the proposed development could potentially relate to:
- instability arising from extraction activities at the application site; or
 - spill from HGVs and other plant or vehicles moving within the site.
- 11.110 Effects arising from unplanned events will not have any impact on material assets considered herein. Effects of unplanned events on land and water resources and the local environment are addressed separately in Chapter 6 and Chapter 7 of this EIAR.

Cumulative / Synergistic Impacts

- 11.111 A search of the Offaly and Westmeath County Council planning portals and An Coimisiún Pleanála’s online planning search facilities was undertaken to identify any potential cumulative projects that have been or may be granted within the last five years in the vicinity of the proposed development.
- 11.112 There are a number of planned projects in the vicinity of the proposed development, in particular renewable schemes, which is in keeping with the vision set out in the OCDP that traditional employment associated with peat production is replaced by opportunities in the

green economy. The full list of projects that have been considered are identified in Table 14-1 of the EIAR. The proposed Derrygreenagh power project (Planning Ref. PA19.319023) east of the application site and the extension to the permitted solar pv and battery storage development (P. Ref. 21488 of Offaly County Council) located c. 6km east have both been considered in the traffic assessment because they were considered to be of a sufficient scale such that traffic generated by these developments may impact on the future performance of the junction and road network. As set out in Chapter 14, even with the incorporation of the projected trip numbers associated with these two projects, the projected impacts of the proposed development are predicted to be imperceptible.

- 11.113 The Derrygreenagh power project is intended to support the intermittent nature of renewable energy generation and the security of the electrical grid network by providing for the replacement of older conventional power systems with lower carbon gas-fired technology. Yellow River windfarm and the quarry activities associated with P. Ref. 2127 of Offaly County Council are already underway and have been considered in the baseline assessment for the proposed development. The majority of the other projects are upgrades or ancillary to existing energy plants that are legacies of the previous peat power generation that was prevalent in the area.
- 11.114 In terms of remaining cumulative impacts on material assets (other than traffic and associated noise and air impacts), it is considered that none of the proposed projects will result in excessive cumulative impacts. The shift to renewable / low carbon energy powered infrastructure through the projects is considered to represent an overall benefit to material assets by future proofing energy infrastructure and reducing the potential for damage from greenhouse gases in the long term.

Transboundary Impacts

- 11.115 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

- 11.116 The links between material assets and traffic / cultural heritage have been discussed in the preceding chapter.

'Do-nothing Scenario'

- 11.117 If planning permission is not approved for the proposed development, the potential for valuable aggregates underlying the application site would not be realised and materials for the applicant's concrete batching plant would need to be obtained from sites further afield, with more associated traffic and CO₂ emissions. The site would continue to be used for agriculture.
- 11.118 A 'do-nothing scenario' would result in the loss of opportunity to obtain economically important aggregate reserves and secure alternative employment to replace jobs lost from the cessation of peat powered energy production in line with the objectives of the OCDP.

Mitigation Measures

Construction and Operational Stage Impacts

- 11.119 The mitigation of the construction and operational stage impacts of the proposed development in respect of 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.
- 11.120 All waste generated at the site will be appropriately stored and removed by licenced contractors.

Post-Operational Stage Impacts

- 11.121 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

- 11.122 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

- 11.123 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.

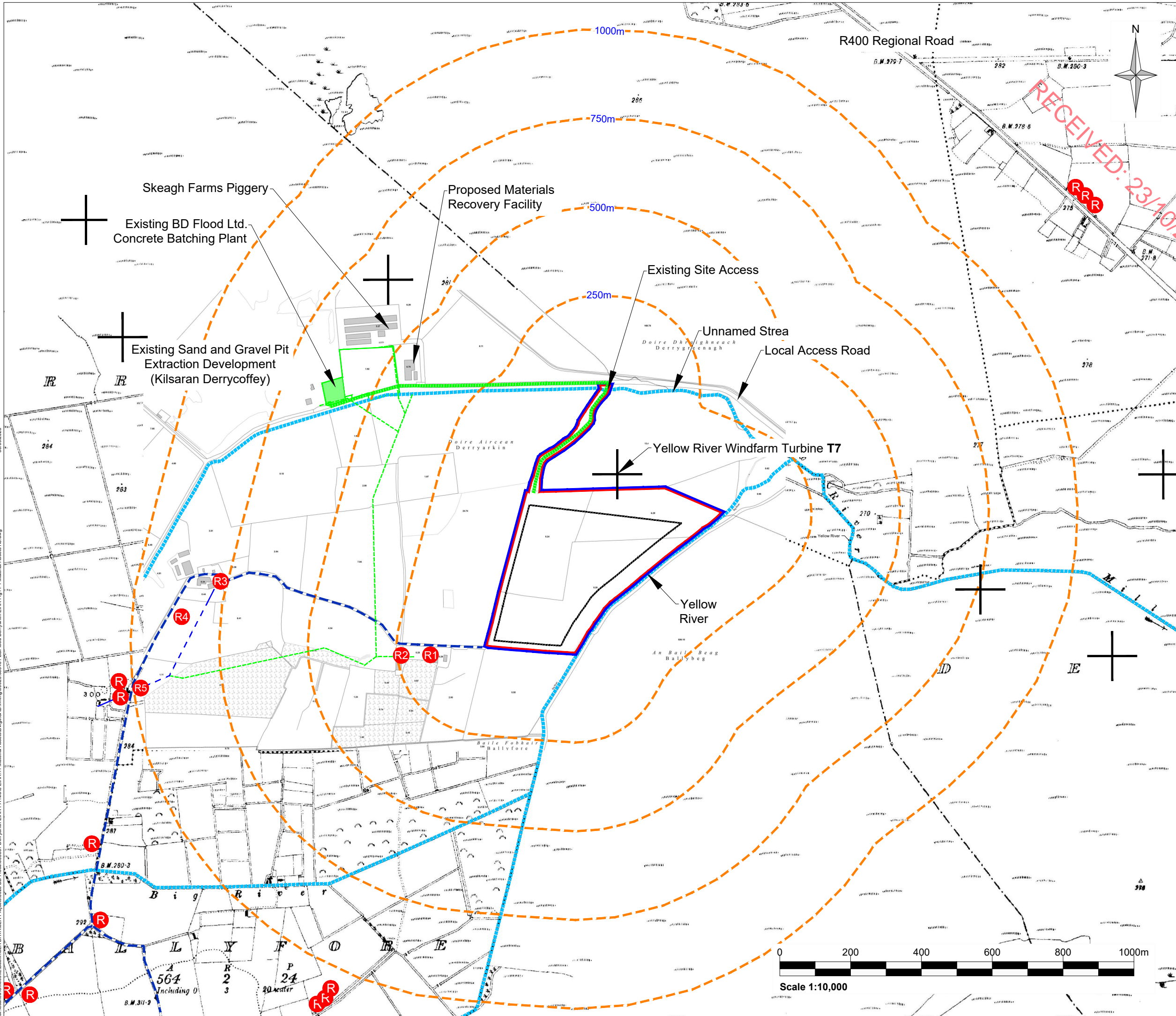
Monitoring

- 11.124 Monitoring, over and above that 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: Site Location Map

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Notes:
 Tailte Éireann OSI Mapping 5,000 scale - sheet no.'s 3180 & 3181

Legend:

- Applicant Land Interest Boundary
c. 19.5 hectares
- Proposed Planning Application Area
19.5 hectares
- Proposed Sand and Gravel Extraction Area
11 hectares
- BD Flood Ltd. Land Interest Boundary
2.5 hectares
- Existing BD Flood Ltd. Concrete Batching Facility (P. Ref. 13/122)
- Surface Water Features (Yellow River / Unnamed Stream)
- Proposed haulage route from S&G pit to Concrete Batching Plant
- Yellow River Wind Farm Turbine Locations
- Distance Off-Sets from Planning Application Boundary
250m, 500m, 750m and 1km
- Residential Property Locations
Residences numbered within 1km of Application Boundary
- Uisce Eireann Water Mains
- ESB Overhead Powerlines (400/230V & 10/20KV)

Rev	Amendments	Date	By	Chk	Auth



Client
BD Flood Unlimited Company

Project
Proposed Sand and Gravel Development at Derryarkin, Co. Offaly

Figure Title
Surrounding Land Use / Material Assets Map

Scale 1:10,000	@ A3	SLR Project No. 501.00023.065461
Designed smcd	Drawn smcd	Checked lh
Date 01/25	Date 01/25	Date 09/25
Date 01/25	Date 01/25	Date 09/25

Figure Number
Figure 11-1

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