An Coimisiún Pleanála

NON-TECHNICAL SUMMARY (EIAR)

Proposed Kilmartin Soil Recovery Facility

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Proposed Kilmartin Soil Recovery Facility

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1.1 BACKGROUND OF PROPOSED DEVELOPMENT

This Environmental Impact Assessment Report (EIAR) Non-Technical Summary (NTS) has been prepared in support of an application for Strategic Infrastructure Development (SID) to An Coimisiún Pleanála ('ACP'/ 'the Commission') and a Waste Licence Application to the Environmental Protection Agency (EPA). WSP Ireland Consulting Ltd (WSP) have been commissioned to prepare an EIAR of behalf of the Applicant, Kilmartin Junction 14 Limited, who seek to:

- Develop and operate a Soil Recovery Facility at the Applicant's land in Kilmartin, Coynes Cross, Co. Wicklow (the 'Proposed Development') to raise land within a natural valley to levels that tie in with the wider ground levels at the Site using imported inert soil and stone waste; and
- Progressively restore the filled valley to long-term grassland / hedgerow habitat, similar to that which existed prior to the development of the soil recovery facility. The long term use of the land will be a return to agriculture.

It is anticipated that the inert soil and stone waste[1] to be imported, managed and handled at the soil recovery facility will largely be generated by construction projects in Counties Co. Wicklow, Dublin and Wexford.

The operation of the soil recovery facility will provide additional waste capacity within the State. It will also improve drainage of parts of the Site by raising and altering the topography, which is expected to have a beneficial effect on the land's agricultural quality.

1.2 CONTEXT OF PROPOSED DEVELOPMENT

Subject to the granting of a waste licence by the EPA, the wastes to be accepted at this facility will include:

- Construction and demolition (C&D) materials consisting of inert soil and stone. This material will be used in the filling operation; and
- Pre-segregated hardcore C&D materials consisting of concrete, blocks and bricks. This material will be used in the construction of site haul roads and hardstanding areas, as required. This material will meet end of waste criteria prior to use, where applicable.

For the purposes of the SID application, it is envisaged that soil recovery activities will continue for the duration of the waste disposal operations and follow-on restoration works. Planning permission for the activity is expected to expire thereafter, unless otherwise renewed by the company / Planning Authority.

[1] Primarily clean soil and stone from third-party construction and demolition projects.

1.3 NEED FOR AN EIAR AND WASTE LICENCE

The proposed rate of infilling exceeds the upper limit of 25,000 tonnes per annum under Class 11b of Part 2, Schedule 5 of the Planning and Development Regulations 2001 (as amended) and Directive 2014/52/EU of the European Parliament and of the Council. Therefore an Environmental Impact Assessment (EIA) is required.

The Proposed Development will be carried out in accordance with any waste licence issued by the EPA or in accordance with by-product regulations, Article 27 of the European Communities (Waste Directive) Regulations 2011. The size and scale of the Proposed Development is such that it will require a waste licence from the EPA. The overall tonnage of soil and stone proposed to be accepted at the Site exceeds the upper threshold of 200,000 tonnes for activity under Class 5.

The SID application is made in accordance with the requirements of Section 37 of the Planning and Development Act 2000, as amended and its attendant regulations. The associated waste licence application is made in accordance with the requirements of the Waste Management Act 1996, as amended, and its attendant regulations.

1.4 EIAR DOCUMENT AND EIA PROJECT TEAM

The assessment of the environmental impacts associated with the Proposed Development are set out in Table 1-1 of the Introduction chapter of the EIAR, alongside the parties responsible for examining the respective disciplines and the relevant competent persons leading each discipline.

In accordance with Article 5(3)(a) of the EIA Directive, ('the developer shall ensure that the environmental impact assessment report is prepared by competent experts'), an EIA project team has been chosen that are sufficiently qualified and experienced to be deemed "competent experts" in the preparation of the required inputs into the EIAR.

1.5 TRANSBOUNDARY IMPACTS

Given the nature and scale of the Proposed Development it is considered that there will be no transboundary environmental impacts.

1.6 DIFFICULTIES ENCOUNTERED IN PREPARING THE EIA

There were no significant difficulties in the preparation of the EIAR.

1.7 PRE-CONSULTATION PROCESS

APC advised that prescribed bodies must be notified of the SID application for the Proposed Development. To this end a non-statutory pre-consultation process was carried out with consultees (identified in the EIAR chapter) between 25 May and 26 June 2023 to seek their comments and observations about the Proposed Development. This process is fully documented in the Pre-Consultation Report accompanying the SID application submission and addressed in the EIAR chapters where relevant.

2 SCOPE AND METHODOLOGY

2.1 EIA APPROACH OVERVIEW

EIA is a process undertaken for certain types of development. It provides a means of drawing together the findings from a systematic analysis of the likely significant environmental effects of a scheme to assist planning authorities, statutory consultees and other key stakeholders in their understanding of the impacts arising from the development.

The aim of EIA is to protect the environment by ensuring that when a responsible authority decides whether to grant permission for a Proposed Development which is likely to have significant effects on the environment, it does so with full knowledge of the likely significant effects. It is then able to take these into account in the decision-making process.

2.2 LEGISLATION AND APPROPRIATE GUIDANCE

The requirement for an EIA process arises from European Union (EU) Directives required to be adhered to by member States and transposed into national laws.

The EU Directive 85/337/EC required that certain private and public projects which are likely to have significant resultant environmental impacts are subject to a formalised EIA prior to their consent.

This Directive was subsequently amended by the EU through three amendments: 97/11/EC, 2003/4/EC and 2009/31/EC, which were then codified in Directive 2011/92/EU. Subsequently, on 16 April 2014, Directive 2011/92/EU was amended by Directive 2014/52/EU of the European Parliament and of the Council.

The 2014/52/EU Directive was transposed into Irish law through European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) which amended the Planning and Development Act, 2000, and the Planning and Development Regulations, 2001. This EIAR has been produced in accordance with these relevant legislative requirements and Statutory Instruments.

The EIAR for the Proposed Development has been undertaken with regard to the above referenced legislation and also with the following guidance:

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Environmental Protection Agency (EPA, 2022);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Environment, Community and Local Government, 2018); and
- Environmental Impact Assessment of Projects Guidance on the Preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission of the European Union 2017).

2.3 EIA PROCESSES

The baseline environment was determined using data collected from site work and desktop study using publicly available data.

The prediction of impacts and effects and the development of mitigation measures to avoid or reduce effects was carried out in line with the EPA (2022) 'Guidelines on the information to be contained in environmental impact assessment reports', except where topic-specific assessment guidance was used. Cumulative effects with third party developments or within the Proposed Development itself are also considered.

When considering the possible effects of the Prosed Development on the environment, the EIAR takes into account where, when, and how long the effects may be felt within the Site and wider area both before and after mitigation measures are applied.

3 PROJECT DESCRIPTION

3.1 THE APPLICANT

The Applicant seeking the permission to develop and operate a soil recovery facility is Kilmartin Junction 14 Limited. This Applicant is based in Blackrock, Co Dublin and is wholly owned by Mr William Norse and the Norse family. Mr Norse is the owner of the freehold interest in the lands and the Norse family has owned and farmed the lands within the Application boundary since the 1940s. The Norse family (operating as Buchpa Ltd) successfully operated the waste permit previously held for the Site from the mid to late 2000s.

3.2 SITE LOCATION AND CONTEXT

The Application Site (the 'Site') comprises lands under the control of the Applicant which are transacted by the Coynes Cross Road (public road). The Application boundary for the Proposed Development (identical to the Site) is 17.08 hectares (ha) in area and is shown on Figure 3-1.

The Proposed Development is fully located within the Site and on lands in the ownership of the Applicant.

Figure 3-1 - Site Location and Application Boundary.

The Site is located in the townlands of Kilmartin, Co. Wicklow, and is approximately 4 km north-east of Ashford (ITM: Easting 728439.5957 Northing 701058.3960).

The Site is irregular in shape and is bounded by agricultural land with some coniferous forestry to the south. There is some ribbon residential development to the north of the Site. Coynes Cross Road/R772 is located to the west of the Site (with a section of the road located within the Application boundary) and this connects to the M11 (via Junction 14) to the south-west of the Site. An existing entrance to the Site is located on the Coynes Cross Road. A small lane is located to the east of the Site that links the L-5064 to the R761 Coast Road. The land further to the east is agricultural land.

The Site is bounded by two small streams, one to the north and one to the south of the Site. The northern stream runs from west to east along the L-5064 road approximately 300 m north of the footprint area. The southern stream runs from west to east across the southern boundary of the Site. These streams meet approximately 600 m to the southeast of the Site and flow southwards into Broad Lough where they join with the Vartry River to form the Leitrim River and ultimately discharge to the Irish Sea at Wicklow town.

The Site is set in a rural environment and the land is used for sheep grazing and some small arable crop farming in the northern section. The presence of a steep sided valley, and periodically wet waterlogged ground at the base of the valley, limits the land's agricultural potential. Consequently, the land use is mainly confined to sheep grazing.

The bulk of the adjacent lands are given to agricultural usage as the Norse family are farming the lands in their ownership.

Over 20 years ago, inert clays, soils and stones were imported to Site and used to infill the base of the valley on the Site (Wicklow County Council Planning Register Reference Number: 08/557; An Bord Pleanála Reference PL 27.229755).

3.3 OVERVIEW OF PROPOSED DEVELOPMENT

The Proposed Development is the establishment and operation of a soil recovery facility that will primarily accept imported clean soil and stone which will be used to infill a deep sided valley located within the Site.

The void space has been estimated at approximately 1,200,000 m^3 and this would represent approximately 2,160,000 tonnes at an estimated rate of 1.8 tonnes per 1m^3 of clays and soils. The outline of the fill area is approximately 14 ha.

The soil recovery facility proposes to accept up to 100 loads per day on average (with up to a maximum of up to 150 loads per day in exceptional circumstances[2]). Based on a maximum 20 tonnes per load this indicates that the Site will receive a maximum of 550,000 tonnes per year giving a Site life of approximately 4 years (on the basis that proposed facility will operate 5.5 days per week and 50 weeks per year). However, it is likely that there will be quieter periods of construction over the proposed restoration period and importation rates may be significantly lower than 100 loads a day. As such, the soil recovery facility's operational lifespan may be up to 10 years.

On the basis of the above, the reasonable worst case and extreme worst case of 100 loads per day and 150 loads per day respectively are identified for the purposes of a conservative worst case environmental assessment. The temporal, spatial and technical scopes of the technical assessments are set out in the relevant technical chapters of this EIAR.

[2] Exceptional circumstances defined as not more than three days total per work contract.

3.4 PROJECT DESCRIPTION SUMMARY

The Proposed Development is the establishment and operation of a soil recovery facility within a 17.08 ha site at Kilmartin, Co. Wicklow (approximately 4 km north-east of Ashford). The soil recovery facility will import up to 2,160,000 tonnes (using a bulk conversion factor of 1.8 t/m^3) of inert waste, primarily clean soils and stones from construction and development sites. Clean soil and stone will be used to progressively infill a steep-sided natural valley within the Site and raise ground levels to approximately 57 m AOD, tying in with the surrounding landscape. The infill area covers approximately 14 ha.

The soil recovery facility will accept up to 100 loads per day on average (maximum 150 in exceptional circumstances) with a projected operational lifespan of up to 10 years depending on market conditions within the construction sector, followed by one year for final restoration and aftercare of the lands.

The Proposed Development will require the following structures be installed and maintained for the operational life of the Soil Recovery Facility:

- Office and welfare facilities;
- Six parking bays for private vehicles;
- Weighbridge and associated weighbridge cabin;
- One wheel wash and one spray-system wheel wash;
- Two waste inspection bays and one bunded waste quarantine area;
- Hardstanding area (for vehicle movement and storage);
- Surface water drainage infrastructure from hard standing and discharge to ground (including two interceptors and two soakaways);
- An internal access road;
- Internal haul roads (constructed from recycled aggregates where available);
- Security features including security gates and fencing; and
- Power supply.

These structures will be removed from the Site at the end of life point of the soil recovery facility.

Approval will be sought for a connection to the ESB Network for the site office and welfare facilities. Diesel generators will be used to power mobile lighting, if required. Temporary lighting, if required, will be cowled to prevent light spillage.

The temporary relocation of ESB poles within the fill area will be required. This will be subject to prior agreement with ESB.

Wastewater from office and welfare facilities will be managed by a third-party provider, with no connection to foul water mains.

All truck deliveries will access the site via the N11/M11 and Coynes Cross Road, with internal queuing space provided within the Site and no parking on public roads.

The existing land entrance located on R772 will be upgraded and will be retained following the completion of the Proposed Development.

A groundwater abstraction borehole will be installed to supply water for wheel washes, dust suppression and welfare facilities, and will be retained for monitoring after restoration.

Restoration will return the Site to grassland and hedgerow habitat, similar to its pre-development state. Approximately 120 m of fence and hedgerow opposite the entrance will be temporarily removed to improve sightlines during the life of the soil recovery facility and this will be subsequently reinstated. Native species will be used in hedgerow planting. The restored land will revert to agricultural management.

Permission is sought from An Coimisiún Pleanála for a period of up to 10 years, with an additional year for restoration. The Proposed Development will require a waste licence[3] from the EPA, and aligns with national and regional policy objectives to provide adequate licensed soil recovery capacity for the Dublin and Wicklow regions.

The waste types and quantities to be deposited or recovered at the facility are detailed in Chapter 3.0 Project Description of the EIAR.

3.5 CAPACITY AND LIFESPAN

Approximately 2.16 million tonnes of clean soils and stone will be required to be imported on to Site during the operational lifespan of the soil recovery facility. This operation of this facility will raise the land at the Site and improve its agricultural potential land allowing for increased agricultural potential and to provide additional waste capacity within the State and region.

The duration of infilling activities at the Site will largely be dictated by the rate at which externally sourced inert soil and stone is imported to the Site. There are many factors which will influence this, including, but not limited to the:

- Availability of acceptable inert materials from development Sites;
- Economic climate and related construction industry output;
- Proximity of development projects to the facility;
- Planning and scheduling constraints at Sites providing inert restoration materials; and
- Physical Site conditions relating to weather.

Taking into account the above factors, the intake rates and duration are a best estimate. Over the short-to-medium term (over 5 years), it is likely significant quantities of inert soil could be sourced from mixed residential and commercial development in Wicklow, the greater Dublin and Kildare areas.

The expected operational life of the facility is 4-10 years, considering a maximum intake of 550,000 tonnes per annum which equates to a reasonable worst case of 100 loads per day and an extreme

[3] The proposed development will be carried out in accordance with a waste licence from the EPA or in accordance with by-product regulations, Article 27 of the European Communities (Waste Directive) Regulations 2011 (see Section 3.5 in Chapter 3:0 Project Description of this EIAR for further detail).

worst case of 150 loads per day. The temporal, spatial and technical scopes of the technical assessments are set out in the relevant technical chapters of this EIAR.

It should be noted that following a grant of planning permission it is anticipated there would be a period of inactivity while the Applicant is seeking grant of a Waste Licence from the EPA. At the time of writing there are no statutory timelines for the EPA to provide a programme for the decision date. However it is anticipated that the EPA may take 1-2 years to grant a waste licence.

Should there be an internal period between the issue of any grant of planning from ACP and the issue of a licence from the EPA, the Applicant may import soil and stone as by-product in accordance with the relevant Articles 27 regulations and guidance regulation.

For the avoidance of doubt, the period for which planning is sought by the Applicant is for 10 years operation of the soil recovery facility, followed by 1 year to conduct the final restoration.

The phasing of the Proposed Development is presented in the EIAR. Details of the final restoration of the lands including reinstatement of soils and planting schedule are presented in the EIAR with the proposed restoration plan is provided as an appendix.

This EIAR uses the term ‘works phase’ to describe the period of time comprising the following construction activities:

- Enabling works to provide facilities required for the operation of the soil recovery; and
- The operation of the soil recovery facility (i.e. acceptance of clean soil and stone to Site and its subsequent emplacement within the fill area.

A ‘restoration phase’, broadly following the work phase (with some temporal overlap), will comprise the shaping of the final landform in the fill level, restoration of stored topsoil, seeding (where necessary), and planting with subsequent aftercare and maintenance.

3.6 ENVIRONMENTAL CONTROLS

Environmental controls are set out in Chapter 3.0 Project Description of the EIAR. Additional measures may be set out in the technical chapters on the EIAR.

An Environmental Management System (EMS) will be developed for the Site to support a waste licence application to the EPA and will be in keeping with industry best practice and statutory guidelines. The EMS will be maintained and updated, with regular environmental monitoring of noise, dust and water quality to ensure compliance with permitted thresholds for the life of the soil recovery facility.

3.7 MAJOR ACCIDENTS AND INCIDENTS

An assessment of major accidents and incidents has been scoped out due to the scale, location, and nature of the Proposed Development.

Works at the Site will be carried out in line with the requirements set out in the Safety, Health and Welfare at Work Act 2005, and any relevant Codes of Practice.

4 ALTERNATIVES

This Chapter of the EIAR addresses the topic of alternatives considered in relation to the Proposed Development of a soil recovery facility at the Applicant's Lands at Kilmartin, Coyne's Cross.

4.1 ALTERNATIVE LOCATIONS

The Site is strategically located close to high quality road networks, which reduces transport costs and carbon emissions associated with road haulage.

It should be noted that an alternative site with a naturally occurring valley that forms suitable conditions for the development of a soil recovery facility is not available to the Applicant who owns this land.

4.2 ALTERNATIVE WASTE MANAGEMENT PRACTICES

The inclusion of an aggregate recycling facility was considered within the development design. However, due to the topographical constraints (limitations imposed by physical features of the lands on the Site) and limited availability of level working space on the Site there is no suitable location for such a facility.

4.3 ALTERNATIVE DESIGN

Design is constrained by the location and nature of the void which is a valley landform located within agricultural lands.

An alternative site access location was considered further south, towards the roundabout at the junction to the N11/M11, near the stream. However, the lands at this part of the Site are steeper.

The design process considered raising the valley to the level of the highest point in the application Site. However, the proposed fill levels were selected to be sympathetic to the surrounding landscape and to allow the surrounding contours to provide a natural buffer to noise and so as not to impact on the visual landscape.

5 POPULATION AND HUMAN HEALTH

5.1 INTRODUCTION

This chapter of the EIAR describes the human environment and identifies the potential impacts from the Proposed Development and potential effects on population and human health receptors.

The potential impacts on the 'quality of life' as a consequence of the Proposed Development are discussed under the following headings: Population; Economic patterns (activity and employment); Amenity; and Land-use.

This chapter of the EIAR should be read in conjunction with other technical chapters of the EIAR including Land, Geology and Soils (Chapter 7.0), Water (Chapter 8.0), Air Quality and Climate (Chapter 9.0), Noise (Chapter 10.0); Traffic and Transport (Chapter 12.0), and Landscape and Visual (Chapter 13.0).

5.1 ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on population and human health a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022).

The study area for the assessment is the Application Boundary and an additional 500 m buffer zone from that boundary.

The assessment was desk based and used publicly available information sources.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

5.2 EXISTING ENVIRONMENT

The Site is located in the townland of Kilmartin, Coynes Cross, Newcastle, County Wicklow and Newcastle Lower Electoral Division (ED). The R772 road is located to the west of the Site and is shown within the application boundary where temporary hedgerow removal will take place to the west of that road.

The Site consists of lands measuring approximately 17.08 ha and occupies a relatively deep valley running north to south with steep sides to the east and west. Land use in the wider area is mostly agricultural with ribbon type development along public roads to the north of the Site. There are no residential properties on the Site. There are 27 residential properties within 500 m of the Site. There are agricultural businesses (farms) in the wider areas beyond the study area. A petrol station is located on the opposite side of the M11 motorway.

Employment industries where the percentage of persons in Newcastle Lower ED are above the county average include agriculture, forestry and fishing, building and construction, commerce and trade, and professional services. The percentage of persons in the Newcastle Lower ED building and construction industry is higher than for the county, which is of itself higher than the national average.

There are limited local services and amenities in proximity to the Site and it is anticipated that people would typically travel to the towns of Newtown Mount Kennedy (5 km distant) and Ashford (4 km distant) to access local services or to the larger County Town of Wicklow (9 km distant). The R772 road connects the Site to the N11/M11 national road/motorway.

On a regional scale there are several tourism and leisure amenities located in the region including the Wicklow Way, Wicklow Black Castle, Wicklow Head Old Lighthouse and Brittas Bay Beach among many others, however, there are no significant tourist attractions in the locality.

5.3 POTENTIAL EFFECTS

Key elements that could present sources of impact to population and human health receptors primarily comprise noise, dust, traffic and visual impacts arising from the importation of materials for soil recovery and the construction and use of welfare facilities.

The potential 'quality of life' impacts as a result of the Proposed Development are predicted to have no significant effects on population, economic patterns (activity and employment), amenity and land-use.

Potential effects on local residents and the local community in general during the lifespan of the Proposed Development may arise from noise, dust, traffic increase and visual intrusion. These potential effects to population and human health receptors have been assessed in the following EIAR chapters: Land, Geology and Soils (Chapter 7.0); Water (Chapter 8.0); Air Quality and Climate (Chapter 9.0); Noise (Chapter 10.0); Traffic and Transport (Chapter 12.0); and Landscape and Visual (Chapter 13.0). Residual effects in those chapters are considered to be 'Not Significant'.

5.4 MITIGATION AND MONITORING

Relevant mitigation measures relating to population and human health have been presented, where required, in the wider technical chapters in the EIAR.

The potential impacts arising during the works phase can be addressed by good construction and site management practices and implementation of the mitigation and monitoring measures set out in this EIAR.

No additional mitigation measures or monitoring are deemed necessary to protect local populations, economic patterns, amenity or land use.

5.5 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted. All potential effects are considered to be sufficiently mitigated through design and good practice.

6 ECOLOGY AND BIODIVERSITY

6.1 INTRODUCTION

This chapter of the EIAR presents a summary of ecological features which are, or have the potential to be, ecological constraints to the Proposed Development. It evaluates the importance of the ecological resources present and defines the degree of significance of potential impacts resulting from the Proposed Development, in the context of relevant legislation, policy and guidance.

6.2 ASSESSMENT METHODOLOGY

Habitats and species were assessed in accordance with the guidance contained in the document Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (CIEEM, 2022). Other topic specific guidelines were also considered.

A desktop review was conducted of available information, including a review of data available on the National Parks and Wildlife Services and National Biodiversity Data Centre web-based databases to find key habitats and species that may be present, in particular those protected by legislation.

The desktop review included a search within the 15 km search area for sites of international importance, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites, Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs).

Ecological baseline surveys of the Site were carried out by O'Donnell Environmental Ltd. by way of a multi-disciplinary site walkover on 9 February 2022. Subsequent ecological walkover surveys were carried out by WSP on 21 August 2023 and on 18 June 2025 to determine whether baseline conditions had changed since the 2022 survey. A tree climbing survey was carried out in September 2022 to inspect potential roosting features of trees located within the proposed fill area.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

6.3 EXISTING ENVIRONMENT

There are 12 Natura 2000 sites located within the 15 km search area. These consist of nine SACs and three SPAs. A Stage 1 Screening for Appropriate Assessment (AA Screening) has been produced to assess the likelihood of significant effects on European (Natura 2000) sites.

The Site occurs predominantly in an intensive agricultural context. No habitats listed under Annex I of the EU Habitats Directive are present within the Proposed Site. All species recorded during the botanical survey are considered common for similar habitats in Ireland.

Suitable habitat was observed onsite for breeding birds, roosting, commuting and foraging bats, and several terrestrial mammals (notably including badger). No open waterbodies were recorded onsite, which is important in terms of the Site's lack of suitability for species such as otter, frogs and newts. Two notable bird species have been recorded inside the 2km grid square in which the study area is located. Of these, only Red Kite (*Milvus milvus*) is protected. Within the 10km grid square in which the study area is located there are historic records for a total of 18 mammal species.

No bat roost data exists in Bat Conservation Ireland (BCI) records within or in close proximity to the Site. The tree-climbing survey did not find any evidence indicating that bats were currently roosting onsite.

The Cullenmore stream flows east approximately 45 m south of the Application boundary at its nearest (southernmost) point. The Cullenmore joins the Dunran Demesne stream 1.3 km to the east. The Dunran Demesne flows southeast for 1.8 km and subsequently turns south where it enters the Murrough Wetlands SAC. It flows south for 800 m where it discharges into Broadlough Estuary which is connected to the Irish Sea at Wicklow Town. The Dunran Demesne stream (before its convergence with the Cullenmore) is located approximately 1 km north of the Site – with no watercourses connecting it to the Site.

6.4 POTENTIAL EFFECTS

The potential effects of the Proposed Development are:

- Site construction would result in the loss of (approximately) 800 m of Hedgerow, 0.3 ha of Scrub, 2.8 ha of Dry Meadows and Grassy Verges and 0.09 ha of disturbed ground;
- Disturbance to habitats and species through clearance of the lands within the Site, which includes all hedgerows within the fill area, including three trees with potential as bat roosts;
- Loss of roosting habitat for bat species;
- Destruction and/or burial of a badger sett;
- The loss of hedgerows and scrub as breeding habitat for bird species; and
- Importation of invasive species.

The AA Screening concluded that the proposal is not likely to lead to significant effects (directly or indirectly) on any Natura 2000 site, either alone or in combination with other plans or projects.

Most effects were considered to be not significant prior to considering additional mitigation measures. Only the following impacts were considered to be significant prior to the application of mitigation measures:

- Loss of roosting habitat for bat species/ death of roosting bats.
- Loss of badger breeding habitat.
- Injury/death to badgers.
- Injury/Death of Nesting Birds or Disturbance of Nests.
- Importation of invasive species.

With mitigation applied all impacts assessed were considered to be not significant.

6.5 MITIGATION, COMPENSATION AND MONITORING

The following mitigation has been advised for the Proposed Development:

- New hedgerow should be planted in all areas where removal is proposed.

- Bat surveys should be carried out by a qualified and experienced ecologist. If required for site clearance, a derogation licence will be sought via application to the National Parks and Wildlife Service.
- Pre-works surveys to confirm whether the badger sett remains a non-breeding sett. Subsequent actions to be determined based on the results. If required for site clearance, recommended steps for exclusion of badgers from setts is set out in the EIAR chapter.
- To limit the potential impact of construction on breeding birds, removal of woody vegetation (hedgerows and scrub) should be restricted to the non-breeding season;
- Good practice biosecurity measures should be utilised to prevent the spread of invasive species on site. Biosecurity measures will be implemented in accordance with the Invasive Species Management Plan (ISMP) which has been provided as a standalone document in the SID application submission. It should be noted that no invasive species were observed onsite during site surveys.

6.6 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

7 LAND, GEOLOGY AND SOILS

7.1 INTRODUCTION

This chapter of the EIAR addresses the magnitude of potential impacts to, and the significance of effects on, land, geology and soils from the Proposed Development.

7.2 ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on land, geology and soils a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022). Topic specific guidelines were also considered.

Embedded mitigation within the design of the Proposed Development has been considered in the assessment.

The geographical study area for the assessment covers the land within the Application boundary and a buffer zone of 500 m from the Application boundary.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

7.3 EXISTING ENVIROMENT

The Site consists primarily of agricultural lands. Desktop assessment indicates that soils mapped at the Site are from the Clonroche soil series. Most of the western part of the Site is mapped as having bedrock at the surface (i.e. immediately below the soils). Where present, the mapped Quaternary sediments over the rest of the Site mainly comprise Till derived from Lower Palaeozoic sandstones and shales. The mapped bedrock geology comprises greywacke and quartzite of the Bray Head Formation. There are no active quarries or mineral sites at or near the Proposed Development. The Proposed Development is in an area that is largely mapped as having low landslide susceptibility and no landslide locations are recorded within the study area. The Radon Risk Map for Ireland (EPA, 2022b) indicates that the Proposed Development is located within an area of medium and high risk areas. There is a County Geological Site at the Wicklow Services Area, which is located approximately 200 m west of the Proposed Development.

7.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified for Land, Geology and Soils:

- Land (soil/sub-soils) at and immediately adjacent to the Proposed Development.
- Human Health (workers).

Potential effects have been considered for Proposed Development. The impacts assessed were:

- Soil erosion or compaction resulting from plant movement during the works phase;
- Stockpile stability during all development phases;
- Importation of materials that could be unsuitable for the intended after-use;

- Activities or events during either the construction or operational phases that might impact land quality (e.g. leaks and spills from machinery or stored material and substances, or discharges); and
- Mobilisation of existing contamination in soils by construction works (e.g. during construction phase soils stripping) and/or installation of a groundwater well should there be historical contamination at the Proposed Development, which could impact workers and land quality.

All effects were considered to be not significant when adopting the impact assessment methodology prior to considering additional mitigation measures.

7.5 MITIGATION AND MONITORING

Embedded mitigation is set out in the EIAR chapter, as is additional mitigation. With mitigation applied all effects assessed were considered not significant.

No monitoring is proposed.

7.6 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

8 WATER

8.1 INTRODUCTION

This chapter of the EIAR addresses the magnitude of potential impacts to, and the significance of effects on, surface water and/or the groundwater receptors from the Proposed Development. It considers groundwater levels, flow regime, quality; surface water flows and quality.

8.2 IMPACT ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on the water environment a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022). Topic specific guidelines were also considered.

Embedded mitigation within the design of the Proposed Development has been considered in the assessment.

The geographical study area for the assessment covers the land within the application boundary and a buffer zone of 1 km from the application boundary.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

8.3 EXISTING CONDITIONS

Desktop assessment indicates that the bedrock is classified as a 'Poor Aquifer', which means that the bedrock is generally unproductive except for in local zones. The Wicklow groundwater body was classified as having 'good' Water Framework Directive (WFD) groundwater body status for the 2013-2018 cycle (EPA, 2022). There are no mapped gravel aquifers (sensitive groundwater bodies) (EPA, 2022). The vulnerability of groundwater to contamination by human activities is moderate-to-high in the eastern half of the Site. Groundwater recharge is estimated at 100 mm/yr and sub-soil permeability is mapped as moderate. Historical groundwater data collected onsite by White Young Green and IE Consulting indicates that there may be hydraulic continuity between the superficial and bedrock aquifers.

There are no areas of groundwater flooding probability shown on the Geological Surveys of Ireland's Groundwater flooding probability maps (2022). The central valley feature at the Site is periodically waterlogged in its base, but this could be poor drainage of surface water rather than groundwater flooding. From historical groundwater monitoring, the groundwater flow was indicated to be to the south. Groundwater quality at the Site has been deemed excellent.

There are no surface watercourses on site. There is a watercourse that flows west to east along the southern boundary of the Site, its waterbody name given by the EPA is Cullenmore. This stream has been assigned 'Good' waterbody status.

There are no wastewater treatment plants or emission points on Site or in the study area. The Site is not in a Group Scheme and Public Supply Source protection area. It is understood that the properties to the immediate north of the Site obtain their water from private water wells. These wells are located hydraulically upgradient of the Site.

There are no international designated sites at, or within 1 km of, the Proposed Development.

8.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified for the water environment:

- Groundwater – quality and availability;
- Surface water – quality and availability; and
- Humans/Human Health (secondary receptor - existing water users' water availability and quality)

Potential effects have been considered for construction/operational/ decommission and restoration phases of the Proposed Development. The impacts assessed were:

- The proposed abstraction of groundwater for water supply for the office and welfare facilities, wheel washes, and (if required) dust suppresion.
- The changes in drainage at the Proposed Development that will capture run-off from areas of hard-standing and from the area of backfilling.

Potential impacts considered in the Land, Geology and Soils Chapter (Chapter 7.0 of the EIAR) that could have secondary (i.e. knock-on) impacts to water quality and that are considered in this assessment are:

- Soil erosion resulting from soil stripping and stockpiling during the construction phase, from plant movement during the construction and operational phases, and from the land raising activities operation phase, that could lead to the generation of suspended solids in watercourses that receive drainage from the Proposed Development;
- Importation of material during construction or operation that could be unsuitable for the intended after-use that could lead to leaching of contamination to the land and then into groundwater and surface water downgradient of the Proposed Development;
- Activities or events during either the construction or operational phases that might impact land quality (e.g. leaks and spills from machinery or stored material and substances, or discharges) that could have a feasible pathway to groundwater and surface watercourses that are downgradient of the Proposed Development; and
- Mobilisation of existing contamination by construction works (should there be historical contamination at the Proposed Development) that could have a feasible pathway to groundwater and surface watercourses that are downgradient of the Proposed Development.

All effects were considered to be not significant when adopting the impact assessment methodology prior to considering additional mitigation measures.

With mitigation applied all effects assessed were considered not significant. Taking account of this additional mitigation, the potential impact to land quality is predicted to be reduced to negligible.

8.5 MITIGATION AND MONITORING

Embedded mitigation is set out in the EIAR chapter, as is additional mitigation. With mitigation applied all effects assessed were considered not significant.

Recommendations for water monitoring are made. Monitoring will be carried as per the requirements of any waste licence issued by the EPA.

8.6 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

9 AIR AND CLIMATE

9.1 INTRODUCTION

This chapter of the EIAR presents an assessment of the potential air quality and climate effects that may occur on the receiving environment as a result of the Proposed Development. The effects have been assessed in the context of relevant national, regional and local air quality policies.

9.2 IMPACT ASSESSMENT METHODOLOGY

A qualitative assessment of dust impacts from the operation of the soil recovery facility has been undertaken in line with Institute of Air Quality Management (IAQM) Guidance on the Assessment of Mineral Dust Impacts for Planning, 2016.

A traffic screening for effects from operational road traffic emissions has been undertaken in accordance with the UK National Highways Design Manual for Roads and Bridges (2019).

Sources of emissions to air considered to have to potential to effect human health are particulates (dust), traffic emissions, and odour. Of these, the potential impact of dust on residential and non-residential receptors (e.g. dwellings, businesses) was determined to require assessment.

It has been found that deposited dust does not generally travel beyond 400 m, therefore all receptors within 500 m of the Application boundary are conservatively considered in the assessment. The guidance states that it is commonly accepted that the greatest impacts from particulates will occur within 100 m of the source, with the potential for travel up to 400 m.

The assessment considered the ‘reasonable worse-case scenario’ which is 100 truck deliveries per day.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

9.3 EXISTING ENVIROMENT

Dust monitoring has been undertaken over a one month period at three locations onsite to collect data on the baseline dust conditions on the Site. One of the dust monitoring locations to the southeast of the Site gives a higher value than the recommended limit, which is likely attributed to organic matter from nearby hedgerows or agricultural activities. The other two dust monitoring locations recorded values below the recommended limit.

The EPA do not operate background air quality monitoring within Newcastle or the immediate surrounds. However, the EPA’s annual mean monitoring data for Zone D (sparsely populated areas) stations were considered.

The climate around the Site is typical of the Irish climate, which is temperate maritime. Desktop data indicates that the month with the highest mean wind speed is February, the driest month is April and, the wettest months in terms of total rainfall are September, October, and December. The prevailing winds are from a southerly direction, with some south-easterlies and north-westerlies.

9.4 POTENTIAL EFFECTS

Potential effects have been considered for works phases of the development. The impacts assessed were:

- The impact of course particulates on air quality, microclimate and climate change; and
- The impact of fine particulates on the surrounding environment.

All effects were considered to be not significant when adopting the impact assessment methodology prior to considering additional mitigation measures.

9.5 MITIGATION AND MONITORING

Best practice mitigation measures have been outlined in the chapter to control dust predicted to arise from the Proposed Development.

Dust monitoring will be undertaken during Site operation. Monitoring will be carried as per the requirements of any waste licence issued by the EPA.

9.6 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

10 NOISE AND VIBRATION

10.1 INTRODUCTION

This chapter of the EIAR presents an assessment of the potential effects on residential properties (i.e. dwellings) that may have high sensitivity to noise and vibration from the Proposed Development. Dwellings that may have high sensitivity to noise and vibration are considered to be 'noise sensitive receptors' in the assessment.

10.2 IMPACT ASSESSMENT METHODOLOGY

This assessment considers potential noise impacts associated with the Proposed Development in accordance with the methods set out in Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4).

Operational noise associated with the Proposed Development has been predicted using the method provided in BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites, Part 1.

The NTA's (2014) Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes was also considered in the preparation of this assessment.

The Proposed Development is not expected to generate significant levels of vibration in the immediate vicinity of the Proposed Development itself. Levels of vibration at off-site NSRs will be lower still and are expected to be substantially below the threshold of perception. Therefore, vibration impacts have been scoped out of this assessment.

The study area for the noise assessment extents up to 325 m from the application boundary.

Reported baseline data prepared by White Young Green Environmental (Ireland) Ltd in 2008 was used to determine the baseline noise conditions in the study area.

The assessment considered the 'extreme worse-case scenario' which is the exceptional circumstances of 150 truck deliveries per day.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

10.3 EXISTING CONDITIONS

The site lies approximately 180 m from the M11 motorway, and the dominant noise source at the Site and the noise sensitive receptors nearby is road traffic.

Four noise sensitive receptors have been identified close to the Site and considered in the assessment. The closest of these four dwellings is approximately 100 m and the furthest is approximately 325 m from the Application boundary.

10.4 POTENTIAL EFFECTS

The predicted noise levels for the Proposed Development are anticipated to have no significant effects on dwellings in the local area.

10.5 MITIGATION AND MONITORING

Specific mitigation measures are not proposed. However practical recommendations have been made which would reduce the likelihood of unnecessary noise.

Recommendations for noise monitoring are proposed. Monitoring will be carried as per the requirements of any waste licence issued by the EPA.

10.1 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

11 CULTURAL HERITAGE

11.1 INTRODUCTION

This chapter of the EIAR considers the potential effects of the Proposed Development on cultural heritage.

11.2 IMPACT ASSESSMENT METHODOLOGY

To assess the effects of the Proposed Development a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022). Topic specific guidelines were also considered.

For the purposes of this assessment, the term 'cultural heritage' is used as a collective term to refer to all heritage assets of archaeological, architectural, and historical or cultural value. Archaeological heritage typically refers to objects, monuments, buildings, environmental remains, or cultural landscapes older than AD 1700, although it can also be used to describe objects, monuments and other tangible remains that date from post-AD 1700. Architectural heritage (or built heritage) refers to structures or buildings (including their contents) of cultural value that are younger than AD 1700. Designed landscapes and gardens dating to post-AD 1700 are also considered to be architectural in this assessment. In both cases, the setting of a heritage asset is considered an integral part of its value.

The study area for the cultural heritage assessment extents up to 1 km from the application boundary.

Relevant legislative guidance and national, regional and local policy (including The County Wicklow Development Plan 2022-2028) and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

11.3 EXISTING CONDITIONS (BASELINE CONDITIONS)

There are 22 archaeological heritage assets from the Sites and Monuments Record within the study area, with a further two located at the eastern edge of the study area. None of these assets are located within the Site area. There is a church located to the northeast of the Site which is a national monument subject to a Preservation Order, however this asset is outside the Application boundary.

The nearest National Monument in State care is the church at Kilcoole, located approximately 6.5 km north of the Site. The Site is not located within an Area of Archaeological Potential or Significance and there are no World Heritage Sites recorded within the study area.

There are no architectural heritage assets listed on the National Inventory of Architectural Heritage Building Survey that are recorded within the Study Area.

In the area around the Application boundary the potential for further previously undiscovered heritage assets to exist as sub-surface archaeological is high.

11.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified:

- A medieval stone church;

- A graveyard associated with the stone church;
- Kilmartin Historic Garden and Designed Landscape; and
- Potential archaeological remains.

Potential effects have been considered for the Proposed Development. The impacts assessed were:

- Potential archaeological remains could be directly impacted as a result of ground disturbance during construction activity;
- Direct impacts to the setting of the stone church and graveyard due to the proximity of the Site to the heritage asset; and
- Damage to Kilmartin Historic Garden and Designed Landscape through soil stripping and infilling.

Effects were assessed and are predicted to be not significant.

11.5 MITIGATION AND MONITORING

To mitigate for the potential presence of undiscovered archaeological remains within the Site, it is recommended that strip map and record under archaeological supervision during topsoil stripping is undertaken by a suitably qualified and licensed specialist archaeological contractor. The appointed archaeological contractor will be required to prepare an archaeological method statement for the proposed archaeological work, which will need to be agreed and approved by the National Monuments Service of the Department of Housing, Local Government and Heritage. The appointed archaeological contractor will also be required to obtain the relevant licences to undertake the works.

No mitigation is considered necessary to mitigate the moderate adverse effect predicted on the church and graveyard, or the slight adverse effect predicted upon BU-03 during operation of the soil recovery facility. It is anticipated that upon restoration of the Site, the existing field boundaries and rural setting will be restored, and the impact will be reversed.

Beyond the proposed archaeological investigation strategy, no long-term or on-going monitoring for cultural heritage is required.

11.6 RESIDUAL AND CUMULATIVE EFFECTS

No significant residual or cumulative effects are predicted to occur.

12 TRAFFIC AND TRANSPORT

12.1 INTRODUCTION

This chapter of the EIAR assesses the impacts associated with traffic and transport. The technical scope of this study examines the traffic implications associated with the Proposed Development in terms of its integration with existing traffic in the area.

12.2 IMPACT ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on traffic and transport a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022), where relevant.

The assessment was undertaken in line with the relevant guidelines published by Transport Infrastructure Ireland. Other topic specific guidelines were also considered where relevant.

A Site visit, an automatic traffic count and 12-Hour classified Junction Turning Count was carried out along with an assessment of the proposed operations at the Proposed Development. The assessment considered the 'extreme worse-case scenario' which is the exceptional circumstance of 150 truck deliveries per day.

The study area includes the road network surrounding the Proposed Development, including access to the M11.

Relevant legislative guidance and national, regional and local policy and industry best practice technical guidelines have been taken into account in the preparation of this assessment.

A Stage 1 Road Safety Audit has been prepared as a standalone document to support the SID application. The findings of this were used to inform an optimised internal layout for the Site temporary facilities (e.g. office and welfare facilities, parking bays, weighbridge cabin).

12.3 EXISTING CONDITIONS (BASELINE CONDITIONS)

Morning and evening peak traffic hours were established from the assessment at:

- 08:00 - 09:00 (AM Peak) and 16:00 - 17:00 (PM Peak) at the Site access (i.e. the R772 and the Proposed Site Access T-Junction);
- 08:45 - 09:45 (AM Peak) and 15:00 - 16:00 (PM Peak) at the M11 Eastern Roundabout (i.e. the R772 and eastern roundabout at M11 Junction 14 interchange); and
- 08:45 - 09:45 (AM Peak) and 15:00 - 16:00 (PM Peak) at the M11 Western Roundabout (i.e. R772 and western roundabout at M11 Junction 14 interchange).

12.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified for traffic and transport:

- Site access junction;
- M11 Eastern Roundabout; and
- M11 Western Roundabout.

Potential effects have been considered for the construction and operational phases as appropriate. The findings of this assessment are:

- The Site access junction will operate within capacity;
- The M11 Junction 14 Interchange will operate within capacity for the assessment years;
- Swept path analysis confirms that Site access will accommodate heavy goods vehicles (HGVs);
- Visibility to the south for drivers exiting the Site is restricted by a combination of the horizontal alignment of the R722 and the boundary vegetation at the edge of the Site on the western side of the R722; and
- The condition of the roads on the route from the M11 to the Site access is good with no observed structural deterioration or depressions in the carriageway pavement.

Most impacts were assessed to be not significant when adopting the impact assessment methodology prior to considering additional mitigation measures. However, the following impacts were considered to be significant prior to mitigation being applied:

- Obstructed visibility to the South of the R722 when exiting the Site; and
- The potential for dust settling onto HGVs at the Site and subsequently being washed onto the public road network (e.g. from rainfall).

12.5 MITIGATION AND MONITORING

The following mitigation measures have been recommended for the Site:

- Revision of the existing site access to maximise sightlines to both sides of the access on the R772;
- Cutting back boundary vegetation and setting back the fence line that is currently reducing visibility to the south on the R772 from the proposed site access, and which is also reducing forward stopping sight distance for northbound drivers on the R772; and
- All HGVs exiting the Site during all development phases will be required to pass through wheel washes.

12.6 RESIDUAL AND CUMULATIVE EFFECTS

With mitigation applied all effects are predicted to be not significant. No significant cumulative effects are predicted to occur.

13 LANDSCAPE AND VISUAL

13.1 INTRODUCTION

This chapter of the EIAR considers the potential effects of the Proposed Development that could arise from impacts to the landscape and visual realm:

- The Landscape Impact Assessment relates to assessing effects of a development on the landscape as a resource in its own right and is concerned with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.
- Visual Impact Assessment relates to assessing effects of a development on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Visual impacts may occur from visual obstruction (blocking of a view, be it full, partial or intermittent) or visual intrusion (interruption of a view without blocking).

13.2 IMPACT ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on landscape and visual a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022). Topic specific guidelines were also considered.

To assess the potential landscape and visual effects of the Proposed Development, field and desk-based studies were carried out. Photomontages were also created to assess the visual impact of the Proposed Development. Four viewshed reference points have been determined from which the visual impact of the Proposed Development was assessed from.

The study area includes the land required for the Proposed Development and a 2 km buffer around this. Relevant legislative guidance and national, regional, and local policy (including The County Wicklow Development Plan 2022-2028), industry best practice technical guidelines have been taken into account in the preparation of this assessment.

13.3 EXISTING CONDITIONS

The Site is largely agricultural fields and occupies a relatively deep valley running north to south with steep sides to the east and west. Beyond the Site there are minor waterways in the central study area, in the form of two small streams, one to the north and one to the south of the site.

Along the slight plateau in landform to the west of the Site, the land use is dominated by the N11/M11 corridor. The north of the study area is more densely populated than the south, however this is limited to clusters of residences with spacious surrounds and a high degree of vegetation.

The Proposed Development is located in the 'Corridor Area' Landscape Character Category and the subsequent Landscape Character Area 4(a) Corridor Area East – The N11. This is described as follows in the county development plan: "*This area covers the main access corridor area along the east of the County. The boundary of the eastern access corridor generally follows what is considered to be the areas upon which the greatest influence is exerted by this primary access*

route. This route, for the most part, runs through the more low lying and accessible tracts of land, dissects the Glen of the Downs wood in the north of the County and provides expansive coastal views north of Wicklow Town. This landscape area acts as the main connection between the major towns along the east coast of the County."

To the east of the Site is the Landscape Category 'Coastal Areas Area of Outstanding Natural Beauty' (AONB), more specifically Landscape Character Area 2(a) The Northern Coastline (AONB). Lastly, to the west is the Landscape Category 'Area of High Amenity' (AHA), which contains the Landscape Character Area 3 (a) Northeast Mountain Lowlands (AHA).

Within the study area are two Scenic Routes, 14 and 15. Of these, 15 is the nearest to the Site, running along the N11 to the immediate west of the Site. Route 14 is described as "N11 at Kilmullin" with a "Prospect of Kilcoole and the coast", while Route 15 is described as "From Coynes Cross on N11 towards Wicklow", with a "View of Wicklow Head and Coastline". There are no designated views within the study area.

There is a collection of monuments service points in the surrounds, however the majority of these are not evident from public locations or signposted with associated visitor facilities (parking, signposting, etc).

13.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified for the Landscape and Visual assessment:

- View of the Site area from the M11 route; and
- View of the Site area from the selected four viewshed reference points.

Potential effects have been considered for the Proposed Development. The impacts assessed were:

- Increased HGV movements from the Proposed Development;
- The removal of existing hedgerows and occasional trees within the valley fill area;
- Deposition of material within the existing landform changing the view of the landscape; and
- Alteration of the view of the landscape form the four selected viewshed reference points.

The impacts were assessed and all were considered to be not significant when adopting the impact assessment methodology prior to considering additional mitigation measures.

With mitigation applied all impacts assessed were considered to be not significant.

13.5 MITIGATION AND MONITORING

The main mitigation is the siting of the Site within a robust rural setting that currently has anthropogenic influences. The final mitigation of the infill will be reinstating topsoil, seeding and planting to establish a pastoral landcover similar to that which existed prior to works.

No monitoring is proposed.

13.6 RESIDUAL AND CUMULATIVE EFFECTS

With mitigation applied all effects are predicted to be not significant. No significant cumulative effects are predicted to occur.

14 MATERIAL ASSETS

14.1 INTRODUCTION

This chapter addresses the magnitude of potential impacts to, and the significance of effects on, material assets from the Proposed Development.

Material assets comprise the physical resources in the environment, which may be of human or natural origin. Material assets in the vicinity of the Site comprise of built services and infrastructure such as surface water drainage, telecommunications, electricity, water supply infrastructure and sewerage. Material assets can be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes transport infrastructure. Accordingly, this chapter of the EIAR should be read in conjunction with other technical chapters of the EIAR, where relevant.

14.2 IMPACT ASSESSMENT METHODOLOGY

To assess the impacts and effects of the Proposed Development on traffic and transport a common framework of assessment criteria and terminology has been used based on the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022).

Information for the assessment of potential impacts on the identified material assets was obtained by means of a desk-based review, and included the following sources: ESB network utility plans; Gas Networks Ireland utility plans; Eir CYBD mapping; Irish water utility mapping; Field surveys of the Application Site; Department of Communication, Climate Action and Environment (DCCAE) Eircode maps; and aerial and ordnance survey maps of the area.

The study area for material assets is the geographical area within the Application boundary and 500 m from the Application boundary.

Material assets considered elsewhere within this EIAR include architectural heritage (assessed in Chapter 11.0 Cultural Heritage) and roads and traffic (assessed in Chapter 12.0 Traffic and Transport). Chapter 8.0 Water addresses likely significant potential effects of surface and ground water systems on neighbouring water networks and dwellings.

Relevant legislative guidance and national, regional and local policy, industry best practice technical guidelines have been taken into account in the preparation of this assessment.

14.3 EXISTING CONDITIONS

ESB Networks service data indicates that electrical network utilities are present in the Site and the wider study area. Dwellings and premises in the local area of the Site are generally served from low and medium voltage overhead lines.

A medium voltage overhead line crosses the centre of the Site in an east-west orientation. The line originates from the Kilmartin 38 kV substation. Approximately 325 m of overhead line is located within the Application boundary, and this is supported by five poles that are located within the Application boundary (see Appendix 14A). This line is relocated underground near the Site entrance and extends along the north side of the road to the northeast where it is relocated above ground and connects to a medium voltage overhead line located to the west of the Site.

Medium voltage lines in the study area are located underground where they cross the Carrickmines-Arklow-Ballybeg transmission line which is located to the west of the Site.

There is no Gas Networks Ireland (GNI) infrastructure mapped within the Site and the nearest GNI infrastructure is reported to be a high-pressure transmission pipe located approximately 300 m east of the Application boundary.

Eir CBYD data indicates that there are no existing underground or overhead telecommunications cables in the study area.

There are no public mains connection services recorded on Site. There is a discontinued water pipeline located along the R772, to the north-west of the Site. Historically, this would have been connected to the mains pipeline which runs north-west, abutting the R772. Properties to the north-west of the Site and closest to the N11 motorway are connected to the mains water, whereas properties to the immediate north obtain their water from private water wells. The Site is not in a Group Scheme and Public Supply Source protection area. There are no mapped active abstraction groundwater wells and springs on Site (groundwater monitoring wells are present on the Site). Desktop data indicates groundwater wells are present at Kiltimon and Courtfoyle.

An old French drain was discovered on Site running northwest to southeast across the Site towards the Kilmartin stream.

There are no existing public surface water drainage networks and no surface watercourses within the Site. The Site is bounded by two streams.

Little waste is generated by site activities at present. Any waste is collected and managed appropriately by an authorised waste contractor.

14.4 POTENTIAL EFFECTS

The following sensitive receptors have been identified for material assets:

- Electrical services and utilities for surrounding users;
- Gas services and utilities for surrounding users;
- Telecommunications networks for surrounding users;
- Surface water drainage networks surrounding the Site;
- Water supplies and services for surrounding users;
- Wastewater networks for surrounding users; and
- Waste management infrastructure.

Potential effects have been considered the Proposed Development. The impacts assessed were activities or events that might impact:

- Electrical services and utilities for surrounding users;
- Gas services and utilities for surrounding users;
- Telecommunications networks for surrounding users;
- Surface water drainage networks surrounding the Site;
- Water supplies and services for surrounding users;

- Wastewater networks for surrounding users; and
- Waste management infrastructure.

All effects were considered to be not significant, prior to adoption of mitigation measures.

14.5 MITIGATION AND MONITORING

In additional to the relevant mitigation and monitoring measures set out in the wider EIAR, the following mitigation measures have been identified:

- A cable avoidance tool will be used prior to any intrusive works (e.g. topsoil stripping) to locate any underground cables; and
- All works will be carried out in line with the ESB guide 'ESB Networks Code of Practice for Avoiding Danger from Overhead Electricity Lines (ESB 2019)

Within this EIAR chapter it is noted that the Applicant must follow ESB Guidelines to request that an ESB pole or line is moved. The Applicant will follow ESB guidelines and seek any necessary permissions.

14.6 RESIDUAL AND CUMULATIVE EFFECTS

With mitigation applied all effects are predicted to be not significant. No significant cumulative effects are predicted to occur.

15 INTERACTIONS, CUMULATIVE AND COMBINED EFFECTS

This Chapter of the EIAR considers the interactions/inter-relationships between environmental effects, and cumulative effects of the Proposed Development in combination with other relevant committed development around the Site.

This chapter has been prepared with reference to the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022). Professional judgement is provided by the relevant topic specialists.

15.1 ENVIRONMENTAL INTERACTIONS

Environmental factors are inter-related to some degree, and these interactions can exist on many levels. In Table 15-1 (below), an 'x' in the box identifies where there is potential for an interaction between environmental factors given the nature, scale and location of the Proposed Development. A summary of the interaction is provided in the chapter under relevant topic sub-headings.

Table 15-1 - Potential Environmental Interactions

	Pop. & Human Health	Ecology & Biodiversity	Land, Soils & Geology	Water	Air Quality & Climate	Noise	Cultural Heritage	Traffic & Transport	Landscape & Visual	Material Assets
Pop. & Human Health			x	x	x	x	x	x	x	x
Ecology & Biodiversity			x	x	x	x			x	
Land, Soils & Geology				x	x		x			
Water										x
Air Quality & Climate							x	x		
Noise							x	x		
Cultural Heritage									x	
Traffic & Transport										x
Landscape & Visual										
Material Assets										

15.2 CUMULATIVE AND COMBINED EFFECTS

In-combination (combined) effect: these effects occur where a single receptor is affected by more than one source of effect from different aspects of a development or project. For example, where a

local resident is affected by dust, noise and traffic disruption during the construction of a development of project, with the result being a greater nuisance than each individual effect alone.

Cumulative effects: these effects occur as a result of a number of developments which individually might not be significant, but when considered together with the Proposed Development could create a significant cumulative effect on a shared receptor.

As assessment of these effects considered a study area of the Application boundary and areas within 2 km of that boundary. Third party projects were identified through public planning data sources and the pre-consultation process, and include significant projects granted planning permission between November 2020 and December 2025.

Cumulative and combined effects are predicted to be not significant.

16 MITIGATION AND MONITORING

The purpose of this chapter of the EIAR is to collate the mitigation and monitoring measures identified in the EIAR that are considered necessary to protect the environment prior to, and during, the works and restoration phases of the Proposed Development.

The EIAR Project Team contributed to the compilation of this chapter.

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