



Ecological Impact Assessment Report

Proposed Large-Scale Residential Development

Ballintubber Road,
Baneshane, Midleton

Co. Cork

March 2026

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LIMITATIONS

This report combines the outcomes of thorough desk study research and in-situ site assessment (completed by a qualified ecologist) to inform the Ecological Impact Assessment (EclA) for the proposed large-scale residential development at the Baneshane, Midleton, Co. Cork.

Best practice was followed at all times and within the limitations stated. This report is the property of Verdé Environmental Consultants Limited (Verde) and cannot be used, copied, or given to any third party without the explicit prior approval or agreement of Verde.

All information contained in this report is based on the information made available to Verde, either through publicly available records or in reports and drawings presented to us which we assume to have been provided in good faith. This report represents an assessment of the site and was performed in accordance with generally accepted standards regarding environmental assessment.

Verde makes no other representations whatsoever, including those concerning the legal significance of its findings or as to other legal matters touched on in this report, including, but not limited to ownership of any property or the application of any law to the facts set forth herein.

1 INTRODUCTION

1.1 Project Details

Verde Environmental Consultants, (Verde) was commissioned by Ian Doyle Planning Consultants, on behalf of the client, Rockspring Properties Ltd., to carry out an Ecological Impact Assessment (EclA) for planning permission for a proposed large-scale residential development (LRD) on lands near Baneshane, Midleton, Co. Cork. The proposed development will involve the construction of houses and apartments, as well as access roadways, walkways, community amenity areas, associated ancillary facilities, and beautification areas.

10 year permission is sought for a large-scale residential development (LRD). The proposed development will consist of the construction of 173 no. residential units comprising a mix of apartments, duplex units, semi-detached houses, terraced houses, and bungalows. Specifically, the LRD will encompass,

- Apartments and Duplexes (74 no.):
 - Block E1: 11 × 2-bed and 6 × 1-bed
 - Block E2: 3 × 3-bed, 6 × 2-bed and 3 × 1-bed
 - Block E3: 9 × 2-bed and 6 × 1-bed
 - Duplex D1: 4 × 2-bed and 4 × 1-bed
 - Duplex D2: 5 × 2-bed and 5 × 1-bed
 - Duplex D3: 9 × 2-bed and 3 × 1-bed
- Houses (99 no.):
 - 11 × 4-bed semi-detached
 - 76 × 3-bed (33 semi-detached, 27 end-of-terrace, 16 mid-terrace)
 - 10 × 2-bed (3 end-of-terrace, 1 terraced, 6 bungalows)
 - 2 × 1-bed bungalows
- A crèche of c.137.5 sq.m gross floor area (59.22 sq.m dedicated childcare space and 78.28 sq.m ancillary/circulation), with capacity for c.20 children.
- The provision of a pumping station to serve the development.
- Alterations and improvements to the junction at Abbey Wood Estate and Ballintubber Road, .
- All associated car parking (273 spaces), bicycle parking (161 spaces), public open space, landscaping, and ancillary site development works.

1.2 Site Location and Setting

The proposed LRD is located on lands to the west of Midleton town, proximal to the N25 dual carriageway. The LRD site is located within a peri-urban development, comprised of agricultural lands and housing estates, with several single lane roadways traversing throughout the landscape. Figure 1.1, below, provides an overview of the location of the LRD site, whilst Figure 1.2, overleaf, provides an overview of the LRD site layout and immediate surrounding landscape.

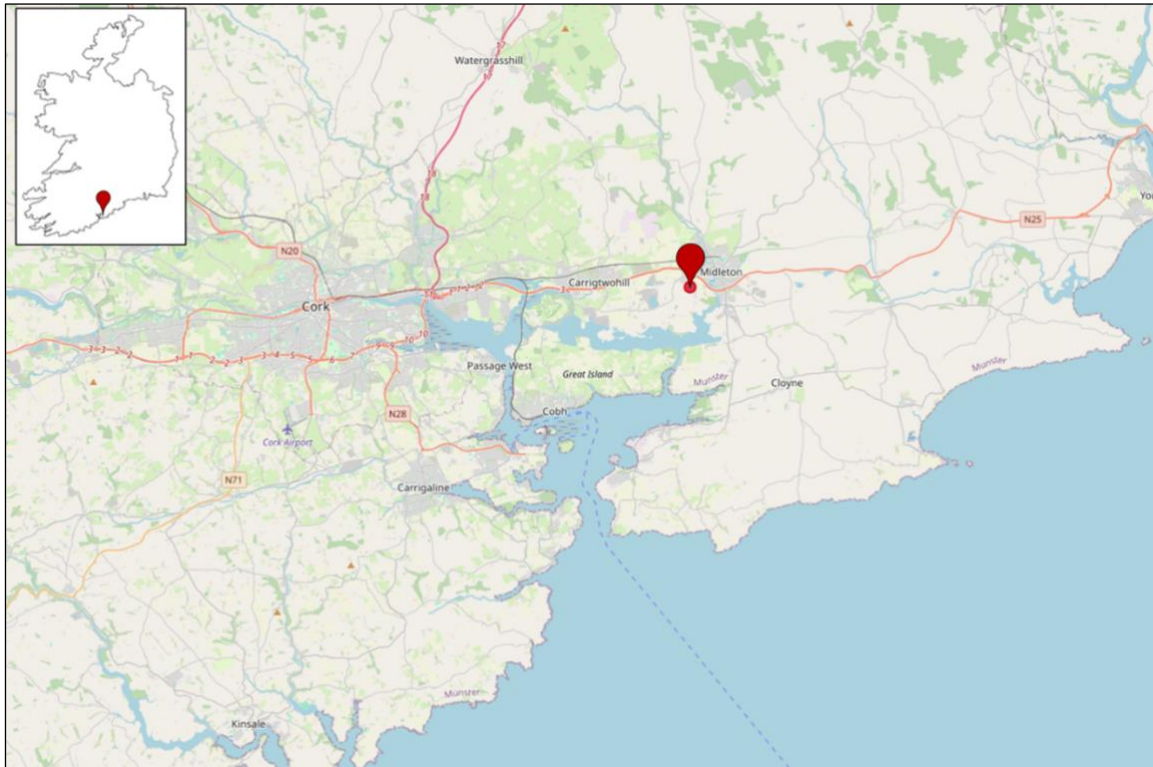


Figure 1.1 – Location of the proposed development, near Baneshane, Midleton, Co. Cork.



Figure 1.2 – Overview of the location of the proposed large-scale residential development.



Figure 1.3 – Layout of the proposed development near Baneshane, Midleton, Co. Cork.

1.3 Purpose of this EclA Report

The purpose of this report is to provide supporting information to the competent authority, in this case Cork City Council, to carry out an assessment of the ecological effects of the proposed development. The aim of this EclA report is to,

- To describe the baseline data collection and assessment methods used
- To summarise the baseline ecological conditions
- To identify and describe all potentially significant ecological effects associated with the proposed development
- To set out the design, mitigation and compensation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects.
- To identify how mitigation and compensation measures will/could be delivered.
- To provide an assessment of the significance of any residual effects in relation to the effects on biodiversity and the legal and policy implications.
- To identify appropriate enhancement measures and how these will/could be delivered.
- To set out the requirements for post-construction monitoring.

1.4 Evidence of Technical Competence and Experience

Dr. Jeff Hean holds a Ph. D in Zoology and Marine Biology with a decade of experience. working in the field on research, conservation management, and industry projects. Jeff is the principal ecologist at Verde Environmental Consultants and is a full member of the Institute for Environmental Sciences (UK). Jeff's experience encompasses residential developments, road, rail, and renewable energy developments, mining operations, inland fisheries management, water quality monitoring & management, and conservation planning. Equally, Jeff offers extensive experience in the production of reporting outputs including Appropriate Assessments, Ecological Impact Assessments (EclA), Environmental Impact Assessment, and other ecology reporting in support of planning applications across Ireland.

2 LEGISLATION

Flora and fauna in Ireland is protected at a national level by the Wildlife Act, 1976 and the Wildlife (Amendment) Act, 2000 and the Flora (Protection) Order, 1999 (SI 94/1999). They are also protected at a European level by the EU Habitats Directive (92/43/EEC) and the EU Birds Directive (79/409/EEC).

The transposition of the EU Habitats Directive by the European Communities (Natural Habitats) Regulations 1997 – 2011 (referred to as the Habitat Regulations) provides the legal basis for the protection of habitats and species of European importance in Ireland.

The legislative protection of habitats and species provided by the Habitats Directive has been implemented in Ireland and throughout Europe through the establishment of a network of designated conservation areas known as the Natura 2000 (N2K) network (with individual sites being referred to as Natura 2000 Sites). The N2K network includes sites designated as Special Areas of Conservation (SACs), under the EU Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive. SACs are designated in areas that support habitats listed on Annex I and/or species listed on Annex II of the Habitats Directive. SPAs are designated in areas that support: 1% or more of the all-Ireland population of bird species listed on Annex I of the EU Birds Directive; 1% or more of the population of a migratory species; and more than 20,000 waterfowl. Under the National Habitat Regulations all designated Natura 2000 Sites are referred to as European Sites.

The Wildlife Act 1976 (as amended) also provides for the statutory designation of nature conservation areas. These areas are referred to under the Wildlife Acts as Natural Heritage Areas and are designated in areas that support habitats and/or species of national importance. Other relevant national legislation concerning the protection of flora, fauna and fisheries include the:

- Planning and Development Act 2010
- European Communities (Quality of Salmonid Waters) Regulations, 1988
- The Freshwater Fish Directive 1978 (78/659/EEC)
- The Surface Water Regulations, 2009

3 METHODS

3.1 Site Assessment Methods

General assessments of the site were carried out by Verde ecologist Dr. Jeff Hean in June and September 2025, as well as in February and March 2026. The site assessments were in line with the Heritage Council's Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011) and habitats were classified to level 3 of the Fossitt (2000) classification system. To illustrate the general habitat quality, photographs were taken using a digital camera. Grid references were recorded using a GPS handset. Site evaluation is based on the guidelines of the Chartered Institute of Ecology and Environmental Management (CIEEM 2019). The site and immediate surroundings were inspected for the presence of invasive species, as listed in the First Schedule of the Birds and Natural Habitats Regulations (S.I. No. 477/2024). Regulation 49 (2) states that "any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place any plant listed in the Third Schedule, shall be guilty of an offence".

The determination of the presence or absence of Annex I habitats was carried out in consultation with the habitat descriptions provided in the most recent Article 17 Reports (NPWS, The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview., 2019). The Interpretation Manual of European Union Habitats (EUR 28, April 2013) was also consulted. In addition, the spatial GIS data for the Article 17 Reports were examined to determine the distribution of these habitats (as known to the NPWS) within the study area.

3.2 Key Ecological Receptors

Investigations completed with respect to biodiversity and that specifically relate to European Sites in the wider surrounding area include habitat surveys and an evaluation of the habitats occurring on site to function as suitable habitats for estuarine and marine bird species. The habitat surveys were used to evaluate the potential for the proposed development site to offer suitable habitat for special conservation interest bird species or other birds associated with the Cork Harbour SPA.

3.2.1 Non-Volant Mammals

A search for field signs indicating the presence of non-volant mammals within and adjacent to the Development site was completed in October 2025. These field signs, as described in Neal & Cheeseman (1996) and Bang & Dahlstrom (2006), include:

- Mammal breeding and resting places, such as setts, holts, lairs
- Pathways & prints
- Faecal deposits & latrines (and dung pits used as territorial markers)
- Feeding signs (snuffle holes)
- Hair
- Scratch marks

The surveys for non-volant mammals were completed after periods of dry weather when field signs were more likely to be present.

3.2.2 Avifauna

Conditions on site have been surveyed for their potential to function as a foraging habitat for estuarine, marine and over-wintering bird species. Dedicated surveys for the presence of special conservation interest bird species or waterbirds of the above listed SPAs were completed during the 2025/2026 non-breeding bird season, when wintering special conservation interests of these SPAs are present. Certain special conservation interest bird species of these SPAs, as identified in the screening report, are known to rely on agricultural land such as grassland and stubble for foraging and roosting, especially during high tide when intertidal foraging habitats are inundated. For instance, golden plover and lapwing, both of which are special conservation interest bird species for the Cork Harbour SPA are considered to be examples of terrestrial waders (NPWS, 2012b). Given that the greatest likelihood of these species occurring at the Proposed Development site was during high tides, the majority of field surveys completed at the Proposed Development site were completed to coincide with high tide when waders and other waterbirds are most likely to use terrestrial habitats for foraging or roosting. Low-tide surveys were also completed so that baseline information relating to ex-situ waterbird movements from SPAs to the Proposed Development site and the vicinity of the Proposed Development site could be gathered. There is no formal methodology published for the surveying of wintering waterbirds on terrestrial sites. Surveys of waterbirds at low-tide to inform IWeBS surveys and surveys at coastal SPAs rely on 4 low-tide survey counts completed between the months of September and March. This is consistent with the British Trust for Ornithology (BTO) method of four surveys during the winter season, ideally during the months of November to February. Bird surveys were completed on the following dates,

Table 3.1 – Summary of bird surveys undertaken at the proposed development site.

Date	Survey Focus
29 th January 2026	Winter Birds
12 th February 2026	Winter Birds
27 th February 2026	Winter Birds
2 nd March 2026	Breeding Birds
14 th March 2026	Breeding Birds

Surveys on the above listed dates were completed from several vantage points surrounding the proposed development site, where views of > 250 m were afforded. Additionally, the lands within the Proposed Development site were walked on each survey occasion at the end of the vantage point surveys to confirm presence/absence of waterbirds at the Proposed Development site. Based on the survey effort required for low tide surveys and the survey effort used to inform other large-scale projects, it is considered that the survey effort undertaken to establish the use of the Proposed Development site by terrestrial waders or other waterbirds provides a robust evidence base for the examination of this aspect in this EclA and is representative of best scientific information.

3.2.3 Volant Mammals

An appraisal of habitats occurring within the Proposed Development site for their potential to support bat species was completed during the October 2025 site assessment. The habitats on site were also appraised for their potential to function as a roosting, commuting, and foraging habitat for bats. This appraisal was undertaken in line with guidance outlined by Collins et al. (2016 & 2023). The structures occurring within and adjacent to the Development site were appraised for their potential to function as roost sites for bats. Marnell (2022) provide guidance on assessing the potential for structures to support roosting bats. This guidance identifies a variety of factors that increase or decrease the potential of a structure to function as a bat roost.

Additional guidance was sourced from the following:

- Marnell, Kelleher, Mullen (2022) Bat mitigation guidelines for Ireland V2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland
- CIEEM (2021) Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Beta version. Chartered Institute of Ecology and Environmental Management
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal, and Marine. Chartered Institute of Ecology and Environmental Management
- Department of Housing, Planning and Local Government (DHPLG - 2018). Urban Development and Building Heights Guidelines for Planning Authorities
- Bat Conservation Trust (2022) Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys

3.3 Ecological Evaluation

The conservation value of habitats and ecological sites occurring that may occur within the proposed site are assessed against a geographic hierarchy of importance (NRA, 2009) The outline of this geographic hierarchy is provided below and this has been used to determine ecological value in line with the ecological valuation examples provided by the NRA (see NRA, 2009). The geographic evaluation hierarchy is as follows:

- International Sites (Rating A);
- National Importance (Rating B);
- County Importance (Rating C);
- Local Importance (higher value) (Rating D)
- Local Importance (lower value) (Rating E)

3.4 Impact Assessment

3.4.1 Impact Magnitude

Impact magnitude refers to changes in the extent and integrity of an ecological receptor. The IEEM (2006) defines integrity of designated conservation areas as “the coherence of the ecological structure and function across the area that enables it to sustain the complex of habitat and/or the levels of populations of the species for which it was classified”. For non-

designated sites this can be amended to: “the coherence of ecological structure and function, which enables it (the site or populations supported by the site) to be maintained in its present condition’. For the purposes of this assessment the impact magnitude is influenced by the intensity, duration, frequency, and reversibility of a potential impact and is categorised as follows:

- High magnitude impact: that which results in harmful effects to the conservation status of a site, habitat or species and is likely to threaten the long-term integrity of the system.
- Moderate magnitude impact: that which results in harmful effects to the conservation status of a site, habitat, or species, but does not have an adverse impact on the integrity of the system.
- Low magnitude impact: that which has a noticeable effect but is either sufficiently small or of short duration to cause no harm to the conservation status of the site, habitat, or species.
- Imperceptible: that which has no perceptible impact.
- Positive: that which has a net positive impact for the conservation status of a site, habitat, or species.

3.4.2 Impact Significance

The significance of impacts is determined by evaluating the nature conservation value of the site, habitat or species concerned together with the magnitude of the impacts affecting the system. The more ecologically valuable a receptor and the greater the magnitude of the impact, the higher the significance of that impact is likely to be. Table 3.3 outlines the levels of impact significance to be used during the assessment of impacts. The probability of an impact occurring will also be outlined when defining the significance of impacts.

Table 3.3 – Impact assessment matrix.

Nature Conservation Value	Magnitude of Potential Impact			
	High	Moderate	Low	Imperceptible
International	Severe	Major	Moderate	Minor
National	Severe	Major	Moderate	Minor
Regional	Major	Moderate	Minor	Minor
Local	Moderate	Minor	Minor	Negligible
Low	Minor	Negligible	Negligible	Negligible

4 RESULTS

4.1 Site Overview

The proposed Baneshane LRD is located on lands to the west of Midleton town, proximal to the N25 dual carriageway (c. 100m). The LRD site is located within a peri-urban development, comprised of agricultural lands and housing estates, with several single lane roadways traversing throughout the landscape.

4.2 Soils & Geology

The Bedrock Geology Map of Ireland produced by the Geological Survey of Ireland (GSI), describes the prevalent geology of the area. The Baneshane LRD site and surrounding lands are underlain by Waulsortian Mudbank and Pale-grey massive Limestone, with quaternary sediment type dominated by “till derived from Devonian sandstones” (IE GSI Geology Data, Ireland, 2026).

4.3 Hydrology

4.3.1 Surface Water

The Oatencake stream (IE_SW_19O030500), a depositing lowland watercourse (FW2) is located c.140m from the north-eastern corner of the proposed LRD development (at the nearest point). Moreover, the Oatencake stream is a tributary of the Owenacurra River (IE_SW_19O030500), which traverses through Midleton town. The confluence of these two watercourses is located c. 1.35km south-east of the LRD site (from the nearest point). Ultimately, the Oatencake and Owenacurra River flow into Cork Harbour to the south of Midleton town.

4.3.2 Water Framework Directive Status

The Oatencake stream (IE_SW_19O030500), a depositing lowland watercourse (FW2) is located c.140m from the north-eastern corner of the proposed LRD development (at the nearest point). Moreover, the Oatencake stream is a tributary of the Owennacurra River (IE_SW_19O030500), which traverses through Midleton town. The confluence of these two watercourses is located c. 1,35 km south-east of the LRD site (from the nearest point). Ultimately, the Oatencake and Owennacurra River flow into Cork Harbour to the south of Midleton town.

4.3.3 Water Framework Directive Status

According to the WFD Riverbody status (2019-2024), the Oatencake stream is currently classified as having “Poor” water quality status. Similarly, the Owennacurra River is rated as having “Poor” water quality status (River Waterbody WFD Status 2019-2024). According to the most recent Q-values (2023), the Owenacurra River is rated as having “poor” water quality. The Dungourney stream, a tributary of the Owennacurra River, which traverses the landscape to the east of Midleton town, is recorded as having “Moderate” water quality (River Waterbody WFD Status 2019-2024). Furthermore, the latest Q-value water quality rating for the Dungourney stream suggested “Moderate” water quality (Q-value = 3-4; 2023)

Moreover, the Owenacurra estuary is recorded as having “moderate” water quality. The Cork Harbour has been assigned “moderate” water quality status (WFD, 2016-2021), whilst the EPA recognises that the Cork Harbour estuary is “at risk” (Coastal Waterbodies Risk, 2019-2024). According to the EPA, Cork Harbour is of “moderate” ecological status/potential. Figure 4.2, below, provides an overview of the hydrological connectivity of the proposed development site.

4.4 Desktop Analysis

4.4.1 Designated Conservation Areas

There are two Natura 2000 sites within the 15km ZOI (see Figure 4.1), which includes the Cork Harbour SPA and the Great Channel Island SAC. Table 4.1 provides an overview of Natura 2000 sites within the 15km ZOI.



Figure 4.1 – Natura 2000 sites within the 15km ZOI.

Table 4.1 – Natura 2000 Sites within the 15km ZOI.

Natura 2000 Site	Distance from Proposed Development Site	QIs / SCI	Potential Pathways
Great Island Channel SAC (001058)	0,9 km	Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]	Hydrological – Yes Air (Noise & Dust) – Yes Land (Habitat loss/encroachment/loss of

Natura 2000 Site	Distance from Proposed Development Site	QIs / SCI	Potential Pathways
			connectivity/Alien Invasive Species) – No Nearby Habitat for Mobile Species – Yes Human Disturbance - Yes
Cork Harbour SPA (004030)	0,9 km	Little Grebe (<i>Tachybaptus ruficollis</i>) [A004] Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Grey Heron (<i>Ardea cinerea</i>) [A028] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Lapwing (<i>Vanellus vanellus</i>) [A142] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Common Tern (<i>Sterna hirundo</i>) [A193] Wigeon (<i>Mareca penelope</i>) [A855] Shoveler (<i>Spatula clypeata</i>) [A857]	Hydrological – Yes Air (Noise & Dust) – Yes Land (Habitat loss/encroachment/loss of connectivity/Alien Invasive Species) – No Nearby Habitat for Mobile Species – Yes Human Disturbance - Yes

4.4.2 Protected Species Records

A search of the National Biodiversity Data Centre (NBDC) for records of rare and/or threatened species previously identified in the vicinity of the Proposed Development site was completed in December 2025. The location of the proposed Baneshane site and the area immediately surrounds were searched for records of rare, threatened and/or protected species occurring within this area.

No records of protected plant species (listed on the Flora Protection Order 2021) are held for the area of search. With regard to bird species, Table 4.2 lists records for those species of conservation concern (Amber or Red List species); species that are listed on Annex I of the EU Birds Directive; species that are listed as special conservation interest bird species of SPAs in the wider surrounding area, and any other rare species.

4.5 Fauna – Desktop Study

4.5.1 Bird Species

The desktop review of available information obtained from the NBDC between 2015 and 2025 revealed the confirmed observation of 72 bird species within the 4km² grid squares. According to the Birds of Conservation Interest (BoCCI; NPWS,

2025), 10 species are listed as “Red” status (BoCCI, 2021-2026), 23 species are listed as “Amber” status, and 39 species are listed as “Green” status. Table 4.2 provides an overview of bird species observed within the 2km grid squares surrounding the proposed Baneshane LRD site.

Table 4.2 – Bird sighting records within 2km grid squares W2132, W2131, W2231, & W2232 (2015 – 2025).

Species	Count	Date of Last Record	Protections Status	BoCCI Status
Black-headed Gull (Chroicocephalus ridibundus)	10	23/09/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Red
Curlew (Numenius arquata)	2	10/12/2023	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Grey Wagtail (Motacilla cinerea)	2	07/01/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Herring Gull (Larus argentatus)	2	26/05/2024	Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Red
Meadow Pipit (Anthus pratensis)	1	10/12/2023	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Pochard (Aythya ferina)	1	12/11/2022	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Red Grouse (Lagopus lagopus)	1	25/08/2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red

Redshank (<i>Tringa totanus</i>)	3	10/12/2023	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Woodcock (<i>Scolopax rusticola</i>)	1	01/01/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Yellowhammer (<i>Emberiza citrinella</i>)	2	16/01/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Red
Black-tailed Godwit (<i>Limosa limosa</i>)	1	10/12/2023	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Amber
Common Sandpiper (<i>Actitis hypoleucos</i>)	2	05/08/2019	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Coot (<i>Fulica atra</i>)	1	13/11/2014	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Cormorant (<i>Phalacrocorax carbo</i>)	3	26/05/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Gadwall (<i>Mareca strepera</i>)	1	13/11/2014	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Goldcrest (<i>Regulus regulus</i>)	16	23/09/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Great Black-backed Gull (<i>Larus marinus</i>)	2	08/10/2023	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber

House Martin (<i>Delichon urbicum</i>)	2	23/09/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
House Sparrow (<i>Passer domesticus</i>)	3	07/01/2024	Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Kestrel (<i>Falco tinnunculus</i>)	2	20/11/2023	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Amber
Kingfisher (<i>Alcedo atthis</i>)	1	07/01/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Lesser Black-backed Gull (<i>Larus fuscus</i>)	1	26/05/2024	Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Linnet (<i>Linaria cannabina</i>)	2	25/01/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Mediterranean Gull (<i>Ichthyaetus melanocephalus</i>)	1	20/06/2023	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Mistle Thrush (<i>Turdus viscivorus</i>)	6	25/01/2024	Protected Species: Wildlife Acts	Amber
Mute Swan (<i>Cygnus olor</i>)	5	07/01/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Oystercatcher (<i>Haematopus ostralegus</i>)	3	05/11/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Amber
Shelduck (<i>Tadorna tadorna</i>)	1	13/11/2014	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Snipe (<i>Gallinago gallinago</i>)	1	07/01/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of	Amber

			Conservation Concern >> Birds of Conservation Concern - Red List	
Sparrowhawk (<i>Accipiter nisus</i>)	2	16/07/2022	Protected Species: Wildlife Acts	Amber
Swallow (<i>Hirundo rustica</i>)	1	26/05/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Swift (<i>Apus apus</i>)	2	26/05/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Amber
Teal (<i>Anas crecca</i>)	2	21/02/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Amber
Blackbird (<i>Turdus merula</i>)	22	05/11/2024		Green
Blackcap (<i>Sylvia atricapilla</i>)	5	26/05/2024		Green
Blue Tit (<i>Cyanistes caeruleus</i>)	19	26/05/2024		Green
Brambling (<i>Fringilla montifringilla</i>)	1	17/02/2008	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >>	Green
Bullfinch (<i>Pyrrhula pyrrhula</i>)	4	31/12/2023		Green
Buzzard (<i>Buteo buteo</i>)	11	16/01/2024		Green
Chaffinch (<i>Fringilla coelebs</i>)	21	26/05/2024		Green
Coal Tit (<i>Parus ater</i>)	6	26/05/2024		Green
Collared Dove (<i>Streptopelia decaocto</i>)	3	26/05/2024		Green
Dipper (<i>Cinclus cinclus</i>)	4	29/12/2024		Green
Dunnock (<i>Prunella modularis</i>)	14	26/05/2024		Green
Fieldfare (<i>Turdus pilaris</i>)	1	10/12/2023		Green
Goldfinch (<i>Carduelis carduelis</i>)	8	25/01/2024		Green
Great Tit (<i>Parus major</i>)	15	23/09/2024		Green
Greenshank (<i>Tringa nebularia</i>)	1	07/01/2024		Green
Grey Heron (<i>Ardea cinerea</i>)	12	26/05/2024		Green
Hooded Crow (<i>Corvus cornix</i>)	11	26/05/2024		Green
Jackdaw (<i>Coloeus monedula</i>)	13	23/09/2024		Green
Jay (<i>Garrulus glandarius</i>)	13	25/01/2024		Green

Little Egret (<i>Egretta garzetta</i>)	10	26/05/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species	Green
Long-tailed Tit (<i>Aegithalos caudatus</i>)	9	25/01/2024		Green
Magpie (<i>Pica pica</i>)	13	25/01/2024		Green
Mallard (<i>Anas platyrhynchos</i>)	6	07/01/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Green
Moorhen (<i>Gallinula chloropus</i>)	3	07/01/2024		Green
Pheasant (<i>Phasianus colchicus</i>)	3	25/01/2024	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species	Green
Pied Wagtail (<i>Motacilla alba</i>)	4	26/05/2024		Green
Raven (<i>Corvus corax</i>)	1	16/07/2022		Green
Redwing (<i>Turdus iliacus</i>)	6	25/01/2024	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	Green
Reed Bunting (<i>Emberiza schoeniclus</i>)	1	12/11/2023		Green
Robin (<i>Erithacus rubecula</i>)	24	05/11/2024	Protected Species: Wildlife Acts	Green
Rock Dove (<i>Columba livia</i>)	2	16/07/2022	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species	Green
Rook (<i>Corvus frugilegus</i>)	8	26/05/2024		Green
Siskin (<i>Spinus spinus</i>)	2	18/02/2021		Green
Song Thrush (<i>Turdus philomelos</i>)	18	26/05/2024		Green
Starling (<i>Sturnus vulgaris</i>)	2	08/10/2023	Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	Green
Treecreeper (<i>Certhia familiaris</i>)	4	23/09/2024		Green
Waxwing (<i>Bombycilla garrulus</i>)	1	06/03/2005		Green
Woodpigeon (<i>Columba palumbus</i>)	20	23/09/2024		Green
Wren (<i>Troglodytes troglodytes</i>)	18	23/09/2024		Green

4.6 Non-Volant Mammals

The desktop review of available information obtained from the NBDC revealed that there are several recent records for 9 mammals within the 2 km grid squares surrounding the Baneshane LRD site. It should be noted that two of the species recorded are listed as alien invasive species in Ireland.

Table 4.3 – Records of non-volant mammals observed within the 2km grid squares surrounding the Baneshane LRD site.

Species	Count	Last Record	Conservation Status
Badger (<i>Meles meles</i>)	1	09/02/2014	Protected Species: Wildlife Acts
Brown Rat (<i>Rattus norvegicus</i>)	1	12/09/2015	Invasive Species: High Risk Invasive Species (2013 Report)
Hedgehog (<i>Erinaceus europaeus</i>)	3	11/07/2022	Protected Species: Wildlife Acts
Irish Stoat (<i>Mustela erminea subsp. hibernica</i>)	2	03/05/2024	
Otter (<i>Lutra lutra</i>)	2	24/04/2017	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Pine Marten (<i>Martes martes</i>)	1	11/07/2020	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Rabbit (<i>Oryctolagus cuniculus</i>)	1	24/11/2013	Invasive Species: Medium Risk Invasive Species (2013 Report)
Red Fox (<i>Vulpes vulpes</i>)	3	06/11/2012	
Red Squirrel (<i>Sciurus vulgaris</i>)	4	21/01/2023	Protected Species: Wildlife Acts

4.7 Volant Mammals

The desktop review of available information obtained from the NBDC revealed that there are several recent records for 7 non-volant mammals within the 2 km grid squares surrounding the Baneshane LRD site.

Table 4.4 – Records of volant mammals observed within the 2km grid squares surrounding the Baneshane LRD site.

Common Name (Taxon)	Count	Last Record	Conservation Status
Brown Long-eared Bat (<i>Plecotus auritus</i>)	1	24/09/2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Common Pipistrelle (<i>Pipistrellus pipistrellus sensu stricto</i>)	4	20/09/2020	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Daubenton's Bat (<i>Myotis daubentonii</i>)	24	24/09/2021	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Leisler's Bat (<i>Nyctalus leisleri</i>)	2	20/09/2020	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Natterer's Bat (<i>Myotis nattereri</i>)	1	20/09/2020	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	2	20/10/2015	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	6	20/09/2020	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts

The ground-based preliminary bat roost assessment did not find any suitable PRFs within the Site as the Site does not contain any buildings, whilst trees on and surrounding the Baneshane LRD site were not observed to have any notable cracks, crevices, or holes suitable for bat roosting. Moreover, trees observed surrounding the LRD site did not exhibit dense ivy growth or any other vegetation covering on tree trunks that may offer suitable refuge to bat species. Moreover, immediate area surrounding the Baneshane LRD site are subjected to elevated noise and light emissions, specifically from residential homes, retail outlets, and manufacturing facilities of Midleton town, as well as the ubiquitous noise and light emissions from vehicles along the N25 roadway, located c. 100m from the Baneshane LRD site. Habitats within the LRD site and the immediate surrounds may therefore offer only low / limited habitat for commuting and/or foraging bats.

4.8 Herpetofauna

The desktop review of available information obtained from the NBDC revealed that there are no records of herpetofauna within the 2km grid squares surrounding the Baneshane LRD site.

4.9 In-situ Survey Results

4.9.1 Habitats

The following habitats were observed on or in the immediate vicinity of the Baneshane LRD site,

- Buildings and Artificial Surfaces (BL3)
- Spoil and bare ground (ED2)
- Recolonising Bare Ground (ED3)
- Scrub (WS1)
- Hedgerows (WL1)
- Improved Agricultural Grassland (GA1)
- Amenity Grasslands (GA2)
- Ornamental shrub (WS3)
- Lowland/Depositing River (FW2)

The site is primarily comprised of Buildings and Artificial Surfaces (BL3), typified by concrete surfaces, storage tanks, fences, and ancillary facilities. Scrub (WS1) was the predominant habitat type observed within the boundaries of the LRD site, with patches of dry calcareous grassland (GS2) interspersed throughout. Typical species observed within scrub include Hawthorn, bramble (*Rubus fruticosus*), hedge bindweed (*Hypericum Calystegia sepium*), ivy (*Hedera spp*), ash (*Fraxinus excelsior*), grey willow (*Salix cinerea*). Typical species within dry calcareous grassland include bents (*Agrostis spp.*), meadow grass (*Poa spp.*), Cocks foot (*Dactylis glomerata*), clovers (*Trifolium spp.*), plantain (*Plantago spp.*), Yorkshire-fog (*Holcus lanatus*), thistle (*Cirsium vulgare*), and nettles (*Urtica dioica*).

Spoil and Bare Ground (ED2) and Recolonising bare ground (ED3) was observed along the north-western boundary of the LRS site, with common floral species observed included Herb Robert (*Geranium robertianum*), Broad leaved dock (*Rumex*

obtusifolius), Spear thistle (*Cirsium vulgare*), Nettle (*Urtica dioica*), Willowherb (*Epilobium angustifolium*), Ragwort (*Jacobaea vulgaris*), Dandelion (*Taraxacum spp.*), Creeping buttercup (*Ranunculus repens*), and Ribwort plantain (*Plantago lanceolata*).

Lands surrounding the site to the South are dominated by improved agricultural grasslands, divided by hedgerows. A newly completed residential housing development (“The Orchards”) is located on lands adjacent west of the proposed LRD, whilst a residential housing development is currently under construction on lands adjacent east of the proposed LRD site. Lands to the north of the proposed LRD site are a mix of scrub and improved agricultural lands. Typical species observed within hedgerows include ash, grey willow, bramble, hedge bindweed, and Hawthorn. A series of ornamental hedgerows (WS3) were observed along the RockBrook road and Ballintubber Road in the vicinity of the “The Orchards” residential estate.

4.9.2 Alien Invasive Species

No ‘High Impact’ invasive floral species listed on the First Schedule of the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 of 2011) were recorded within the boundaries of the Baneshane LRD site.



Image 4.1 – Views of the Scrub (WS1) Habitat observed within the site boundary.



Image 4.3 – Examples of patches of Dry Calcareous Grassland (GS1) observed within the LRD site.



Image 4.4 – Examples of Recolonising Bare Ground (ED3) and Spoilt & Bare Ground (ED2) observed within /near the LRD site.



Image 4.5 – Examples of Buildings and Artificial Surfaces (BL3) and Amenity Grassland (GA2) on lands adjacent to the LRD site.



Figure 4.6 – Examples of Hedgerows (WL1) observed along roadways adjacent to the LRD site.



Figure 4.7 – Views of Improved Agricultural Grassland (GA1) observed on lands adjacent to the LRD site.

4.9.3 Fauna

4.9.3.1 *Non-Volant Mammals*

Badgers

The lands within and adjacent to the proposed LRD site were investigated between June – July 2025, and between January – March 2026 for evidence of the presence and / or use of nearby habitats, but no such definitive evidence indicating the presence of badgers was noted. Similarly, lands and likely nearby habitats (i.e., agricultural grassland, scrub, and hedgerows) were investigated for the presence of setts, but no evidence to suggest the presence of badger setts was found during all site investigations.

Otters

The proposed development site does not provide nor offer suitable habitat for otters. The Oatencake stream traverses the landscape near the norther boundary of the proposed LRD site, but surveys completed along a 500 m stretch of the watercourse between January – March 2026 found no evidence to suggest the presence or use of this watercourse by otter.

4.9.3.2 *Birds*

A total of 21 bird species were observed on and near the proposed development site between January and March 2026, primarily comprised of common species resident within Ireland all year round. No rare / endangered species were observed within the boundary or on lands adjacent to the LRD site. The distribution of bird species was typically confined to lands comprised of arable cropland and improved agricultural grassland along near the south-western, southerly, and eastern boundaries of the LRD site. No ground nesting birds were flushed from arable land during transects through this habitat. The majority of the number of birds counted encompassed common bird species, such as pigeon, starling, crows, rook, and blackbird. Wren, Robin, Blue Tit, Chaffinch, and Chiffinch were typically observed along hedgerows bounding lands encompassing agricultural grassland. An observation of single Heron and three (3 No) Egret was made during a count completed in March 2026. Both of these species were observed flying overhead from east-west, whilst no other sightings of these species were made on near the LRD site on any other count completed in 2026.

Wintering wetland bird species such as golden plover, lapwing, greylag goose, herring gull, and lesser-black backed gull as well as other waterbirds are known to rely on and / or opportunistically use grassland and arable land for feeding and roosting. These species generally prefer to use areas of open and expansive grassland and arable land for feeding and roosting (FAS, 2017) and are less associated with enclosed and small field sizes (Milsom et al. 1998). Wintering waterbirds that forage on grassland habitats prefer short sward grassland, with the optimum height for species such as golden plover and lapwing reported to be c. 7cm tall (Gillings & Fuller, 1999). During all surveys (January – March 2026), no special conservation interest bird species of the Cork Harbour were observed foraging, roosting, or loafing within the proposed development site or the surrounding area during all winter season and breeding bird season surveys. No other waterbird species were recorded at the Proposed Development site during all surveys. Based upon the results of the field surveys, the proposed development site does not function as a terrestrial habitat relied upon by special conservation interest bird

species or waterbirds listed within the Cork Harbour SPA. Table 4.4, below, provides a summary of bird species confirmed to occur on / near the site during *in-situ* bird surveys in 2026.

Table 4.4 – Overview of bird count data compiled during surveys near the LRD site (Jan – March 2026).

Common Name	Species Name	Survey Date	BoCCI Status
Blackbird	<i>Turdus merula</i>	Jan; Feb; Mar 2026	Green
Blackbird	<i>Turdus merula</i>	Jan; Feb; Mar 2026	Green
Blackcap	<i>Sylvia atricapilla</i>	Feb; Mar 2026	Green
Blue Tit	<i>Cyanistes caeruleus</i>	Jan; Feb; Mar 2026	Green
Chaffinch	<i>Fringilla coelebs</i>	Jan; Feb; Mar 2026	Green
Chiffchaff	<i>Phylloscopus collybita</i>	Jan; Feb; Mar 2026	Green
Coal tit	<i>Periparusater hibernicus</i>	Jan; Feb; Mar 2026	Green
Common Gull	<i>Larus canus</i>	Jan; Feb; Mar 2026	Amber
Dunnock	<i>Prunella modularis</i>	March 2026	Green
Egret	<i>Egretta garzetta</i>	March 2026	Green
Goldfinch	<i>Carduelis carduelis</i>	March 2026	Amber
Heron	<i>Ardea cinerea</i>	March 2026	Green
Hooded Crow	<i>Corvus cornix</i>	Jan; Feb; Mar 2026	Green
Jackdaw	<i>Coloeus monedula</i>	Jan; Feb; Mar 2026	Green
Magpie	<i>Pica pica</i>	Jan; Feb; Mar 2026	Green
Robin	<i>Erithacus rubecula</i>	Jan; Feb; Mar 2026	Green
Rook	<i>Corvus frugilegus</i>	Jan; Feb; Mar 2026	Green
Song thrush	<i>Turdus philomelos</i>	Jan; Feb; Mar 2026	Green
Starling	<i>Sturnus vulgaris</i>	Jan; Feb; Mar 2026	Green
Wood pigeon	<i>Columba palumbus</i>	Jan; Feb; Mar 2026	Green
Wren	<i>Troglodytes troglodytes</i>	Jan; Feb; Mar 2026	Green

Considering the variety of bird species recorded both in the historical records and during the field survey, it is considered that the development site and immediate surrounds contains resident and regularly occurring, only locally important winter and breeding bird species, none of which are listed as “Red” under the Birds of Conservation Concern in Ireland (BoCCI), or rare / endangered species, or any species highly protected under the Wildlife Act.

5 IMPACT ASSESSMENT

5.1 Development Works Phase Impacts

There will be no direct impacts to designated conservation areas occurring within the ZoI or further afield. The Cork Harbour SPA and Great Channel Island SAC are located c 900m to the south of the proposed LRD site. Both of these Natura 2000 sites are distant enough that noise and vibration emissions from the Baneshane LRD works will be completely dissipated. However, the Oatencake stream is located near the northeastern boundary of the LRD site, which offers hydrological connectivity to the Cork Harbour SPA and Great Channel Island SAC. In the event that water generated at the construction footprint is of a poor water quality standard or becomes contaminated from construction works, its discharge will have the potential to result in the release of polluted surface water to the channel of the Oatencake Stream. Additionally, potentially contaminating materials such as oils, fuels, lubricants, other construction related solutions and cement-based products will be used on site during the construction phase and the accidental emission of such material via surface water runoff or groundwater base flows to the Oatencake stream and ultimately into the Cork Harbour will have the potential to undermine water quality within the river and contribute to existing water quality pressures to the transitional waters of the Owenacurra River and Cork. The exposure of lotic and estuarine fauna, including fish, birds, and mammals, to such contaminants can result in disturbance and stress effects.

However, specific note must be made of the location, volume, current state, and anthropogenic modifications made to the geomorphology of the Oatencake stream. The watercourse traverses near the northern boundary of the LRD site but does not traverse within the boundary of the proposed LRD site nor near (< 30m of any specific construction works). Moreover, the Oatencake watercourse has been culverted and traverses underground near the northern boundary of the LRD site and emerges to normal surface flows c. 220m east of the north-eastern corner of the proposed LRD site. As such, there is diminished opportunity for incidental spills and / or influxes of contaminated surface water and / or pollutants directly into the watercourse. Similarly, there is adequate groundcover vegetation along the length of the watercourse where surface flows occur, that would afford a significant natural buffer to surface water, sediment and / or contaminant run-off.

Nevertheless, given the location and geomorphology of the Oatencake stream, whilst considering the location and extent of the proposed development works, it is determined that in the absence of appropriate mitigation measures, likelihood still exists for the potential of a persistent surface water pathway to exist between the proposed Baneshane LRD site and the Cork Harbour SPA and salt meadows and intertidal mud- and sandflats within the Great Channel Island SAC.

5.1.1 Impacts to Habitats

Habitats located within the proposed development site offers low to negligible ecological value, primarily comprised of recolonising bare ground, spoil and bare ground, with patches of dry grassland. Additionally, the dry grassland habitat offers low floral diversity and has been severely modified through anthropogenic activities (e.g., vehicle movement, soil deposition, and soil denuding), offering low ecological value to the local area and region. Lands to the east of the proposed LRD site are typically comprised of arable cropland and improved grassland and will not be affected by the development works.

Habitats of increased ecological value, such as scrub and hedgerows can be found on lands adjacent to the proposed LRD site and offer moderate ecological value. Similarly, scrub and hedgerow habitats offer low floral diversity and often occur in sporadic patches, offering low ecological value as connectivity corridors between the LRD site, adjacent lands, and the greater landscape. However, hedgerow and scrub habitat on adjacent lands to the LRD site will remain untouched by the proposed development works.

Similarly, the proposed development works will not result in a direct loss to bankside vegetation of the Oatencake stream, nor will the works encroach onto the boundary nor within the Oatencake stream. Similarly, the works will not occur adjacent to the artificial pond (located near the northeastern corner of the LRD site). As such, the development works will not result in any loss of vegetation along the stream or pond and will not result in the significantly loss of key floral species nor supporting habitat for amphibians or fish species. Other habitats surrounding the proposed development site offer low floral biodiversity and offer low ecological value, particularly for mobile bird species (such as those identified within the cork Harbour SPA) and will not be impacted by the proposed development works. The proposed development works therefore have potential for negative, short-term, slight impacts to local habitats of low and local ecological importance only.

5.1.2 Impacts to Birds

The LRD site offers no supporting habitats for winter or breeding birds, whilst hedgerows and scrub occur on lands adjacent to the LRD site, which may experience short-term, low volume disturbance during the construction works. There is no planned removal of mature and / or important tree species from within or on lands adjacent to the LRD site or from adjacent habitats. The dry grassland habitat within the LRD site offers unsuitable habitat for ground nesting birds, whilst not such bird species were observed within the boundaries of the LRD site nor on adjacent lands. Tall / mature trees on nearby lands may offer suitable nesting / roosting habitat for bird species that may be temporarily displaced during the development works but will not result in the medium or long-term loss of nesting, roosting, or foraging habitat. Moreover, the area already exhibits elevated noise levels, primarily because of the presence of the N25 freeway (c. 100m north of the LRD site) which is subjected to persistent daily vehicle traffic. The proposed development works therefore have potential for negative, short-term, slight impacts to local bird populations.

5.1.3 Impacts to Bat Species

There are no Natura 2000 sites within the Zol or further afield designated for bats species. Nonetheless, bats are highly mobile and can travel 10 - 20 km per night to forage. However, neither the LRD site nor adjacent lands offer suitable roosting habitat for bats. Furthermore, the area already exhibits elevated noise levels, primarily because of the presence of the N25 freeway (c. 100m north of the LRD site) which is subjected to persistent daily vehicle traffic, and elevated light emissions from Midleton town. The development works therefore have potential for negative, short-term, slight impacts to local bat populations.

5.1.4 Impacts to Non-Volant Mammals

The site assessment completed in 2025 and 2026 found no evidence to suggest the presence of mammals, such as otter, badger, foxes, or protected / important rodent species within the Baneshane LRD site nor on lands proximal to the development site. Although the development works will result in the loss of small volume of vegetation from the dry grassland and scrub habitats, these habitats offer low biodiversity of local importance only. The development works therefore have potential for negative, short-term, slight impacts to local mammal populations.

5.1.5 Impacts to Amphibians

There are no recent records of amphibians within the 2km grid squares (NPWS, 2026), whilst no evidence for the presence of amphibians was made during the site assessments of the LRD site. The Oatencake stream does potentially offer suitable supporting habitat for amphibians, although evidence to suggest the presence of amphibians along the Oatencake stream was found. Nevertheless, surface water discharges during the construction phase of the development works may affect water quality within the Oatencake stream and/or the Uisce Éireann effluent pond. However, considering the volume and extent of works, the Oatencake affords a dilution effect to any potential surface water run-off from the development works, whilst *in-situ* drainage systems would assist in the control of surface water and sediment run-off. The proposed development works therefore have potential for negative, short-term, slight impacts to local amphibian populations (if present)

5.1.6 Operational Phase Impacts

The Baneshane LRD will not result in the significant loss of key supporting habitat for local wildlife. The design of the LRD encompasses sufficient and appropriate SuDS, stormwater, and wastewater management elements that will negate the potential for surface water effects to local watercourses. Consequently, no negative significant impacts on habitats or species are anticipated during the operational phase of the Proposed Development. Table 5.1, below, provides a summary of potential impacts to habitats and species identified near/proximal to the proposed Baneshane LRD site.

Table 5.1 – Summary of ecological importance and potential impacts to ecological receptors observed proximal to the proposed Baneshane LRD.

Habitat / Species	Evaluation	Rationale	Key Ecological Receptor
Dry Grassland (GS1)	Local Importance (Lower Value)	Contained within existing development site and offers low diversity grassland.	No
Buildings & Artificial Surfaces (BL3)	Local Importance (Lower Value)	Man-made habitat of negligible biodiversity value.	No
Spoil and bare ground (ED2)		Man-made habitat of negligible biodiversity value	No
Scrub (WS1)	Local Importance (Higher Value)	Scrub habitat near the proposed development works and within the LRD site, but typically limited to small patches of habitat, and offer low floral diversity. As such, scrub habitats within the LRD site and adjacent lands offer moderate ecological value as corridors to local wildlife within the area, and offer low/negligible connectivity to habitats outside the facility.	No

Habitat / Species	Evaluation	Rationale	Key Ecological Receptor
Artificial Ponds (FL8)	Local Importance (Lower Value)	Man-made habitat of low biodiversity value.	No
Lowland/Depositing River (FW2)	Regional Importance (Moderate Value)	Anthropogenic modification (Banks and flow), impacted by local agricultural lands. Not directly linked to development site. No records or evidence of otter or salmonids. Bankside vegetation modified through agricultural and urban development and offers medium biodiversity.	No
Recolonising Bare Ground (ED3)	Local Importance (Lower Value)	Man-made habitat of negligible biodiversity value.	No
Spoil and bare ground (ED2)	Local Importance (Lower Value)	Man-made habitat of negligible biodiversity value	No
Hedgerows (WL1)	Local Importance (Lower Value)	Hedgerow habitat observed near the proposed development works but not within the LRD site. Typically limited to small patches of habitat and offer low floral diversity. As such, hedgerow habitats on adjacent lands offer moderate ecological value as corridors to local wildlife within the area and offer low - moderate connectivity to habitats outside the facility.	No
Improved Agricultural Grassland (GA1)	Local Importance (Lower Value)	Encompassed on lands surrounding the LRD site to the West, south and east. Typically comprised of grazing favourable floral species (i.e., <i>Poa spp.</i>), and therefore offers low grassland diversity	No
Amenity Grasslands (GA2)	Local Importance (Lower Value)	Observed on lands surrounding existing housing estates adjacent to the proposed LRD site. Man-made habitat of negligible biodiversity value.	Local Importance (Lower Value)
Ornamental shrub (WS3)	Local Importance (Lower Value)	Man-made habitat of negligible biodiversity value	No
Invasive Species	Negligible value	No AIS recorded on / near the development site	No
Winter Bird Assemblage	Local Importance (Lower Value)	The proposed Baneshane LRD site offers no suitable foraging or roosting habitat for wintering birds. Moreover, lands to the north and northeast of the Baneshane LRD site exhibits persistent daily human presence, heavy vehicle traffic, and moderate – heavy foot traffic as a source of constant disturbance to bird species. Site is not considered to contain significant <i>ex-situ</i> habitat for SCI of the Cork Harbour SPA.	No
Volant Mammals	Local Importance (Lower Value)	There is no suitable roosting habitat within the proposed development site. Moreover, lands to the north and northeast of the Baneshane LRD site exhibits persistent daily human presence, heavy vehicle traffic, and moderate – heavy foot traffic as a source of noise, vibration, and light disturbance to bat species. Therefore, the proposed Baneshane LRD site offers low potential to support locally important populations of bats	No
Non-Volant Mammals	Local Importance (Lower Value)	No evidence for the presence of mammals was found within the boundaries of the Baneshane LRD site, nor does the LRD site offer any suitable habitat for non-volant mammals. Similarly, lands surrounding the LRD site offer moderate value supporting habitats for mammals. The local area is subjected to urbanisation and	No

Habitat / Species	Evaluation	Rationale	Key Ecological Receptor
		elevated noise emissions from retail outlets, local access roads and the N25 freeway. Therefore, the proposed Baneshane LRD site offers low potential to support locally important populations of important mammal species	
Amphibians	Local Importance (Lower Value)	No evidence for the presence of amphibians or reptiles was found within the boundaries of the proposed LRD site, nor on lands adjacent to the LRD site. The Oatencake stream offers low potential as supporting habitat for amphibians, primarily because of water quality affected by local agricultural activities and moderated flow unsuitable for amphibian breeding. Similarly, an artificial pond, operated by Uisce Éireann, offers low supporting habitat for amphibians, because of poor water quality (run-off and effluent pond), with very steep banks. Moreover, there are no recent records of amphibians within the 2km grid squares (NPWS, 2026). The Oatencake stream and artificial pond are therefore classified as low value habitats that are not stand alone for the area, whilst lands located to the south of the LRD site may offer more suitable habitat for amphibians.	No

5.2 In-combination Effects

According to the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Government of Ireland, 2018), *“There is no standard prescriptive method for assessing cumulative and combined effects and, in relation to cumulative effects, the extent to which the effects of other developments can be assessed quantitatively depends on the level of information available about the other developments. Such effects are, therefore, **assessed by professional judgment**, although matrices and modelling are used where appropriate and where enough information regarding the other developments exists. Where environmental assessment information regarding other developments is not available or uncertain, the assessment is necessarily qualitative”*.

The potential exists for the proposed development to overlap with other construction projects that may consequently affect habitats and species of Natura 2000 sites contained within the Cork Harbour complex. A review of the Cork County Council planning portal was completed to identify other recently approved or live planning applications, with which the proposed development could combine to result in negative effects to the conservation objectives of habitats and species of nearby Natura 2000 sites via surface water & pollutants, dust, noise & vibration, and increased human presence. A number of planning applications were identified within a 2km radius of the proposed development site. Additionally, planning applications were assessed across the region, specifically along watercourses upstream of the proposed development as well as along the coastline of the Cork Harbour complex within 5 km of the proposed Baneshane LRD site.

However, the majority of these planning applications relate to the minor project associated with changes to existing dwellings or commercial buildings. Such projects are of a small scale and are not considered to present a risk of likely

significant effects, alone or in-combination with other plans or projects. This consideration is supported by the findings of the Local Authority Planners who state in the planners' reports, "*for such projects that there will be no risk of likely significant effects to European Sites*". Given the above such projects are not itemised in this section. As such only three larger scale projects were identified as occurring in the vicinity of or downstream of the proposed development site. These projects are listed below and the potential for the proposed development to combine with these projects is also examined.

Table 5.2 – Summary of approved planning application proximal to the Proposed Development.

Applicant [Application Number]	Status {Approval Date}	Development Description	Likelihood for in-Combination Effects
Seamus & Clare Burke [254442]	Approved – Conditional [24/03/2025]	Permission to remove from existing residential dwelling the existing dormer roof and construct a new first floor two storey extension onto the existing dwelling along the external window and door alterations, a new single storey side and rear extensions onto the existing dwelling, a detached single storey domestic garage and all associated site works and services	<p>The proposed development has potential to generate low-moderate volumes of dust, sediment, and surface water run-off, as well as noise and vibration emissions.</p> <p>As such, the following should be considered:</p> <ul style="list-style-type: none"> • The proposed development is located c. 670m west of the Baneshane LRD site, whereby noise and vibration emissions will be completely dissipated. Moreover, the N25 highway transects the landscape between the planning permission and the Baneshane LRD site, resulting in ambient noise levels already being elevated. • The approved planning development is located within a peri-urban setting and is surrounded by amenity grassland and agricultural lands which offer a natural buffer to sediment and surface water run-off. • Moreover, municipal drainage and stormwater management infrastructure will be found along the adjacent and nearby roadways, further reducing uncontrolled surface water and sediment influx into the Oatencake stream and ultimately Cork Harbour. <p>Consequently, it is determined that the proposed planning development has low likelihood for in-combination effects with the Baneshane LRD site to nearby Natura 2000 sites during the construction or operational phase of the projects.</p>
Margaret McDonnell [246072]	Approved – Conditional [27/02/2025]	Permission to extend an existing two-storey dwelling by the conversion of an existing attached single-storey outhouse to a two-storey habitable space with a single storey extension to the front, elevational changes to the existing to include 1 no. new roof light as well as all associated site works	<p>The proposed development has potential to generate low-moderate volumes of dust, sediment, and surface water run-off, as well as noise and vibration emissions.</p> <p>As such, the following should be considered:</p> <ul style="list-style-type: none"> • The proposed development is located c. 430m southwest of the Baneshane LRD site, whereby noise and vibration emissions will be completely dissipated. Moreover, the N25 highway transects the landscape between the planning permission and the Baneshane LRD site, resulting in ambient noise levels already being elevated. • The approved planning development is located within a peri-urban setting and is surrounded by amenity grassland and agricultural lands which offer a natural buffer to sediment and surface water run-off. • Moreover, municipal drainage and stormwater management infrastructure will be found along the adjacent and nearby roadways, further reducing

			<p>uncontrolled surface water and sediment influx into the Oatencake stream and ultimately Cork Harbour.</p> <p>Consequently, it is determined that the proposed planning development has low likelihood for in-combination effects with the Baneshane LRD site to nearby Natura 2000 sites during the construction or operational phase of the projects.</p>
Rock Gate Property Developments Ltd [235170]	Approved – Conditional [01/08/2023]	Construction of 65 no. dwelling units and all associated ancillary development works including access, parking, drainage (including pumping station), and landscaping. Extension of Duration of Planning Reference Number 17/6604	<p>The proposed development has potential to generate moderate volumes of dust, sediment, and surface water run-off, as well as noise and vibration emissions.</p> <p>As such, the following should be considered:</p> <ul style="list-style-type: none"> • The proposed development is located c. 50m east of the Baneshane LRD, whereby noise and vibration emissions will be completely dissipated. • The approved planning development is located within a peri-urban setting and is surrounded by amenity grassland and agricultural lands which offer a natural buffer to sediment and surface water run-off. • Several appropriate sediment and dust control measures have been observed within the approved planning development site, which assist in mitigating likely significant effects from sediment, surface water, and dust emissions. <p>Consequently, it is determined that the proposed planning development has low likelihood for in-combination effects with the Baneshane LRD site to nearby Natura 2000 sites during the construction or operational phase of the projects.</p>
Uisce Éireann	Approved – Conditional [15/05/2025]	Permission for the Midleton Wastewater Loading Diversion Project which will consist of the provision of a new foul pumping station and rising main connection to Water-Rock WWPS. The works include: 1. New foul pumping station (Midleton South) located within the existing Bailick No.1 wastewater pumping station site, to include wet well, valve chamber, flowmeter chamber, mcc kiosk, wash water kiosk, lighting, vent stack, and all necessary mechanical and civil works to accommodate the proposal. 2. Alterations to the existing site access at Bailick No.1 WWPS site will require removal of sections of the existing wall / hedgerow. To be replaced with a new fence behind the visibility lines. 3. Approximately 1,800m of rising main connecting the Midleton South WWPS to the Water-Rock WWPS, to include air / scoure valve chambers and 6m vent stack at Kennedy Park. The route will travel along Bailick Road, Kennedy Park and Riverside Way. Adjacent to Midleton Gyratory, the route will cross the Owenacurra river using trenchless methods and run along Market Green Plaza to Market Green. A Natura Impact Statement will be submitted to the planning authority with the application. The Natura Impact Statement will be available for inspection or purchase at a fee not exceeding the	<p>The proposed development has potential to generate moderate - high volumes of dust, sediment, and surface water run-off, as well as noise and vibration emissions.</p> <p>As such, the following should be considered:</p> <ul style="list-style-type: none"> • The proposed development is located c. 1,3 km east of the Baneshane LRD site, whereby noise and vibration emissions will be completely dissipated. • The approved planning development is located within an urban setting and is surrounded by amenity grassland, urban drainage and stormwater management infrastructure, and agricultural lands which offer a natural buffer to sediment and surface water run-off. • Several appropriate sediment and dust control measures have been observed within the approved planning development site, which assist in mitigating likely significant effects from sediment, surface water, and dust emissions. • The approved planning permission for the Uisce Éireann development is accompanied by an AA Screening and NIS report, which provides appropriate mitigation measures to avoid impacts to the Cork Harbour complex and Natura 2000 sites within.

		reasonable cost of making a copy during office hours at the office of the relevant planning authority.	Consequently, it is determined that the proposed planning development has low likelihood for in-combination effects with the Baneshane LRD site to nearby Natura 2000 sites during the construction or operational phase of the projects.
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6 MITIGATION MEASURES

The mitigation measures outlined hereunder are based on established best practice guidelines and will provide effective screening of the proposed Baneshane LRD for likely effects to habitats and species and during the construction phase and operational phases of the proposed development. Mitigation measures and environmental safeguards outlined for the construction phase are taken from established best practice guidelines that have been successfully implemented for a wide range of project-level infrastructural developments. These recommended mitigation measures have undergone extensive and rigorous monitoring for their effectiveness at development sites where they have previously been applied to ensure beyond reasonable scientific doubt that there will not be adverse effect stemming from the Proposed Development.

6.1 Construction Phase Mitigation Measure

It has been concluded beyond reasonable scientific doubt that, provided all mitigation measures that aim to avoid significant impacts to nearby habitats and / or ecological receptors will be eliminated. This in turn will eliminate the potential for adverse effects to the conservation objectives and integrity of Natura 2000 sites within the ZoI and further afield. The mitigation measures will also eliminate the risk of the proposed development impacting upon the environment via all other pathways, including air and human disturbance.

The best practice guidance that has informed the mitigation measures herein and the proposed environmental safeguards that should be adhered to throughout the construction and operational phases of the Proposed Development (as recommended by the EA / SEPA / EHS) include,

- PPG 1: Understanding your environmental responsibilities - good environmental practices
- GPP 2: Above ground oil storage tanks
- PPG 3: Use and design of oil separators in surface water drainage systems
- GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer
- GPP 5: Works and maintenance in or near water
- PPG 6: Working at construction and demolition sites
- PPG 7: Safe storage - The safe operation of refuelling facilities
- GPP 8: Safe storage and disposal of used oils
- GPP 8: Safe storage and disposal of used oils
- GPP 8: Safe storage and disposal of used oils
- GPP 19: Vehicles: Service and Repair
- GPP 21: Pollution incident response planning
- GPP 22: Dealing with spills
- GPP 26 Safe storage - drums and intermediate bulk containers
- PPG 27: Installation, decommissioning, and removal of underground storage tanks
- CIRIA Environmental Good Practice on Site.

6.1.1 Habitats

The following measures will be undertaken to reduce and avoid potential damage to habitats henceforth:

- Hydrocarbons or any hazardous chemicals must be stored in specified bunded areas.
- Refuelling of plant machinery must be carried out in bunded areas, to minimise the risk of any potential pollutants being discharges from the site.
- Pollution control measures must be implemented to control any runoff from the site and prevent any runoff potentially contaminated with sediments or hazardous chemicals entering the drainage network.
- Pouring of cement-based materials for works will only be carried out in dry conditions.
- Pumped concrete must be monitored to ensure there is no accidental discharge.
- Mixer washings and excess concrete must not be discharged directly into the existing drainage network.
- Concrete washout areas must be created to avoid any accidental discharge from the proposed development site.
- Foul drainage from site offices and compounds, where not directed to the existing wastewater network, must be contained and disposed of off-site in an appropriate manner and in accordance with the relevant statutory regulations, to prevent any pollution to watercourses.
- An appropriate response procedure must be put in place to deal with any accidental pollution events and spillage kits will be available.
- Construction staff must be made familiar with the emergency response procedure and use of the equipment.

6.1.2 Water Quality

The potential for the construction phase of the proposed development to result in the discharge of polluted surface water to the Oatencake Stream and ultimately into the Cork has been identified as a potential impact pathway that could result in adverse effects to the Cork Harbour SPA and Great Channel Island SAC. To minimise the generation of polluted waters in the first instance and avoid the discharge of polluted surface water to the Oatencake Stream, the following measures will be implemented:

- The main contractor will appoint a suitably qualified person to oversee the implementation of measures for the prevention of pollution to the receiving surface water environment.
- A surface water catch-trenches will be provided along the northern, western, and eastern boundary of the construction footprint prior to stripping topsoil. The surface water catch-trenches will have a settlement pond silt trap at the end of each trench with an overflow. The surface water catch-trenches will be discharged via a buffered outfall overland to the north of the site. Straw bales will be placed within the catch-trenches at strategic locations and at the outfall of the settlement ponds to the overflow. These measures will be implemented and maintained during the construction phase to prevent surface water runoff from discharging directly into the local water course.
- A clean water diversion drain will be provided for in advance of the stripping of topsoil (if any). The clean water diversion drain will be provided to the north and up-gradient of the construction footprint. This will divert

surface water runoff overland from areas to the north and upgradient of the construction footprint away from this footprint, thereby minimising the volume of runoff occurring within this footprint.

- A silt fence will be installed in accordance with CIRIA guidelines along the northern, northeastern, and eastern boundary of the construction footprint. The provision of the silt fence, particularly along the northern and eastern boundary of the construction footprint will eliminate the potential for the untreated release of silt-laden surface water from the Proposed Development site
- Settlement ponds/silt traps will be provided to prevent silt runoff into any existing ditches, the Uisce Éireann settlement pond, and the Oatencake Stream watercourse during the drainage works.
- In the unlikely and unexpected event that silt control measures are noted to be failing or not working adequately, works will cease in the relevant area. The project ecologist will review and agree alternative pollution control measures, such as deepening or redirecting trenches as appropriate, before works may recommence.
- All fuels and chemicals will be bunded, and where applicable, stored within double skinned tanks / containers with the capacity to hold 110% of the volume of chemicals and fuels contents. Bunds will be located on flat ground a minimum distance of 50m from any watercourse or other water conducting features. These measures will prevent the discharge of such substances to ground and eliminate the potential for groundwater base flow contamination with such substances.
- Any re-fuelling and maintenance of equipment will be done at designated bunded areas with full attendance of plant operative(s) within contained areas at least 50m from any surface water drain to be provided on site as part of the construction phase drainage management. Re-fuelling in such areas will prevent the discharge of such substances to ground and eliminate the potential for groundwater base flow contamination with such substances.
- Spill kits will contain 10 hr terrestrial oil booms (80mm diameter x 1000mm) and a plastic sheet, upon which contaminated soil can be placed to prevent leaching to ground water.
- A designated wash down area within the Contractor's compound will be used for cleaning of any equipment or plant, with the safe disposal of any contaminated water.
- Surface water drainage and SUDS features will be monitored and maintained by the Developer.
- The water usage within the proposed development must be monitored via the bulk water meters.
- Records will be maintained and supplied to Uisce Éireann to ensure any excess usage is identified and investigated, as necessary.
- The developer / estate manager will monitor the operation of the foul drainage network including the receiving environment and report provide updates to Uisce Éireann.
- The construction and waste management plans will be adhered to.

6.1.3 Best Practice Measures to Control Noise Emissions

A series of best practices will be implemented to control noise emissions during the construction phase. The scheme contractor will be obliged to give due regard to BS5228, which offers detailed guidance on the control of noise from construction activities. In particular, it is proposed that various practices be adopted during construction, including:

- The provision of site / noise hoarding along the western and northern boundary of the proposed development site so that a barrier for noise emissions from the development works. The site / noise hoarding will be installed at the start of the construction phase.
 - Screening is an effective method of reducing the noise level at a receiver location and can be used successfully as an additional measure to all other forms of noise control.
 - Standard construction site hoarding (2.4 m in height) with a mass per unit of surface area greater than 7 kg/m² can provide adequate sound insulation.
- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Selection of quiet plant should be preferred during the construction phase
 - This practice is recommended in relation to static plant such as compressors and generators.
 - It is recommended that these units be supplied with manufacturers' proprietary acoustic enclosures. The potential for any item of plant to generate noise will be assessed prior to the item being brought onto the site.
 - Where possible, the least noisy item should be selected wherever possible.
 - Should a particular item of plant already on the site be found to generate high noise levels, the first action should be to identify whether or not said item can be replaced with a quieter alternative.
- Site compounds will be located away from noise sensitive boundaries within the site constraints.
- The use of lifting bulky items, dropping, and loading of materials within these areas should be restricted to normal working hours.
- For mobile plant items such as dump trucks, excavators, and loaders, maintaining enclosure panels closed during operation can reduce noise levels over normal operation.
- Mobile plant will be switched off when not in use and not left idling.
- For steady continuous noise, such as that generated by diesel engines, noise reduction will be affected where practicable by fitting a more effective exhaust silencer system.
- For all materials handling ensure that materials are not dropped from excessive heights, lining drops chutes and dump trucks with resilient materials.
- For compressors, generators, and pumps, these can be surrounded by acoustic lagging or enclosed within acoustic enclosures providing air ventilation.
- Establishing channels of communication between the contractor/developer, local authority, and residents.
- Appointing a site representative responsible for matters relating to noise.
- Ensuring all site access roads are kept as even as possible so as to mitigate the potential for vibration from lorries.
- Monitoring typical levels of noise during critical periods at sensitive locations.

6.1.4 Mitigation Measures: Dust & Soiling

The construction phase has been identified as having the potential to generate soiling and dust within a potential 100m buffer zone surrounding the construction footprint. Although the Cork Harbour SPA and Great Channel Island SAC lie outside this 100m boundary, the mitigation measures provided hereunder will assist in minimising dust and soiling effects

to other nearby habitats that may afford suitable supporting *ad-hoc* habitat to SCI of the Cork harbour SPA. Dust and fine particle generation from construction and demolition activities on the site can be substantially reduced through carefully selected mitigation techniques and effective management. Once particles are airborne it is very difficult to prevent them from dispersing into the surrounding area. The most effective technique is to control dust at source and prevent it from becoming air borne, since suppression is virtually impossible once it has become air borne.

The following are techniques and methods which are widely used currently throughout the construction industry, and which shall be used in the construction of the proposed development, where appropriate:

- The roads around the site are all surfaced, and no dust is anticipated arising from unsealed surfaces.
- Vehicles travelling on any unsurfaced site roads shall have their speed restricted to 20km/h.
- A regime of 'wet' road sweeping will be set up to ensure the roads around the immediate site areas clean and free from dirt / dust arising from the site, as is reasonably practicable. This cleaning will be carried out by approved mechanical sweepers.
- Footpaths immediately around the site will be cleaned by hand regularly, with damping, as necessary.
- High level walkways and surfaces such as scaffolding shall be cleaned regularly using safe 'wet' methods, as opposed to dry methods.
- Vehicle waiting areas or hard standings will be regularly inspected and kept clean by brushing or vacuum sweeping and will be regularly sprayed to keep moist, if necessary.
- Vehicle and wheel washing facilities will be provided at site exit(s) where practicable. If necessary, vehicles shall be washed down before exiting the site.
- Netting will be provided to enclose scaffolding in order to mitigate escape of air borne dust from the existing and new buildings.
- Vehicles and equipment shall not emit black smoke from exhaust system, except during ignition at start up.
- Servicing of vehicles and plant shall be carried out regularly, rather than just following breakdowns.
- Internal combustion plant shall not be left running unnecessarily.
- Exhaust direction and heights shall be such as not to disturb dust on the ground and to ensure adequate local dispersal of emissions.
- Where possible fixed plant such as generators shall be located away from residential areas.
- The number of handling operations for materials will be kept to a minimum in order to ensure that dusty material is not moved or handled unnecessarily.
- The transport of dusty materials and aggregates shall be carried out using covered / sheeted lorries.
- Material handling areas shall be clean, tidy, and free from dust.
- Vehicle loading shall be dampened down and drop heights for material to be kept to a minimum.
- Drop heights for chutes / skips shall be kept to a minimum.
- Dust dispersal over the site boundary shall be minimised using static sprinklers or other watering methods, as necessary.

- Stockpiles of materials shall be kept to a minimum and if necessary, they shall be kept away from sensitive receptors such as residential areas etc.
- Stockpiles where necessary, shall be sheeted or watered down.
- Methods and equipment shall be in place for immediate clean-up of spillages of dusty material.
- No burning of materials will be permitted on site.
- Earthworks excavations shall be kept damp where necessary and where reasonably practicable.
- Cutting on site shall be avoided where possible by using pre-fabrication methods.
- Equipment and techniques for cutting / grinding / drilling / sawing / sanding etc, which minimise dust emissions and which have the best available dust suppression measures, shall be employed.
- Where scabbling is to be employed, tools shall be fitted with dust bags, residual dust shall be vacuumed up rather than swept away, and areas to be scabbled shall be screened off.
- Wet processes shall be used to clean building facades if possible. If dry grit blasting is unavoidable then ensure areas of work are sealed off and dust extraction systems used.
- Where possible pre-mixed plasters and masonry compounds shall be used to minimise, dust arising from onsite mixing.
- The main contractor shall allocate suitably qualified personnel to be responsible for ensuring the generation of dust is minimised and effectively controlled.
- The name and contact details of a person to contact regarding air quality and dust issues shall be displayed on the site boundary, this notice board shall also include head/regional office contact details.

6.2 Operational Phase Mitigation Measures

6.2.1 Surface Water Run-off

Surface water contamination via the Oatencake Stream is identified as the primary pathway through which likely significant effects may occur to nearby Natura 2000 sites. Measures have been incorporated into the design of the proposed development to ensure that surface water discharging from the proposed development site is clean and does not have the potential to result in pollution to the estuary at the surface water outfall location. These design measures included the provision of onsite attenuation so that all surface water draining from the proposed development site is restricted to green field runoff rates. This will be achieved by providing attenuation storage for the project, as described in Section 2 above.

- Hydrobrakes will be installed at each of the attenuation tanks provided for as part of the development.
- A full hydrocarbon and silt interceptor will be provided at the outlet of the attenuation pond so that all water being directed to the rising main first passes through the interceptor prior to its release from the site.
- A range of SuDS measures will be implemented that will further treat and manage surface water generated on site during the operation phase.

6.3 Residual Impacts

6.3.1 Designated Sites

Following the implementation of measures to prevent construction-related pollutants entering the Oatencake stream, the risk of pollutants reaching downstream Natura 2000 sites and nationally designated sites will be reduced substantially. Residual impacts on designated sites will therefore be reduced to levels deemed not to be significant.

6.3.2 Habitats

Following the implementation of measures to ensure the protection of habitats, residual impacts on habitats are considered to be reduced, but will remain significant at a local level only.

6.3.3 Fauna

Following the implementation of measures to prevent impacts to fauna, impacts on terrestrial and aquatic fauna have been reduced to levels not deemed significant.

7 CONCLUSION

It is that the opinion of the assessing ecologist, Dr. Jeff Hean, that in light of evidence collected through the various ecological surveys at the Baneshane LRD site, near Midleton, Co. Cork, and immediate surrounds, presented within this EclA, and in consideration of the recommended mitigation measures, that the proposed development works encompassing the Baneshane LRD is appropriate and will not have medium to long-term significant effects on key ecological receptors, nor adversely affect the local biodiversity of the Midleton regional area.

8 REFERENCES

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