Screening Report for Appropriate Assessment

Gortnahomna More, Castlemartyr, Co. Cork

Large-Scale Residential Development

Doherty Environmental Consultants Ltd.

November 2024

Castlemartyr LRD

Gortnahomna More, Castlemartyr, Co. Cork

Screening Report for Appropriate Assessment

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1.0 INTRODUCTION

Doherty Environmental Consultants (DEC) Ltd. has been commissioned by Marshall Yards Development Company Ltd. to prepare a Screening Report in support of an Appropriate Assessment (AA), under Article 6 of the EU Habitats Directive, for a proposed Large-Scale Residential Development (LRD) at Gortnahomna More, Castlemartyr, Co. Cork (see **Figure 1.1** for the location of project site and **Figure 1.2** for an aerial view of the project site).

This Screening Report for Appropriate Assessment forms Stage 1 of the Habitats Directive Assessment process and is being undertaken in order to comply with the requirements of the Habitats Directive Article 6(3). The function of this Screening Report is to identify the potential for the project to result in likely significant effects to European Sites and to provide information so that the competent authority can determine whether a Stage 2 Appropriate Assessment is required for the project.

1.1 LEGISLATIVE CONTEXT

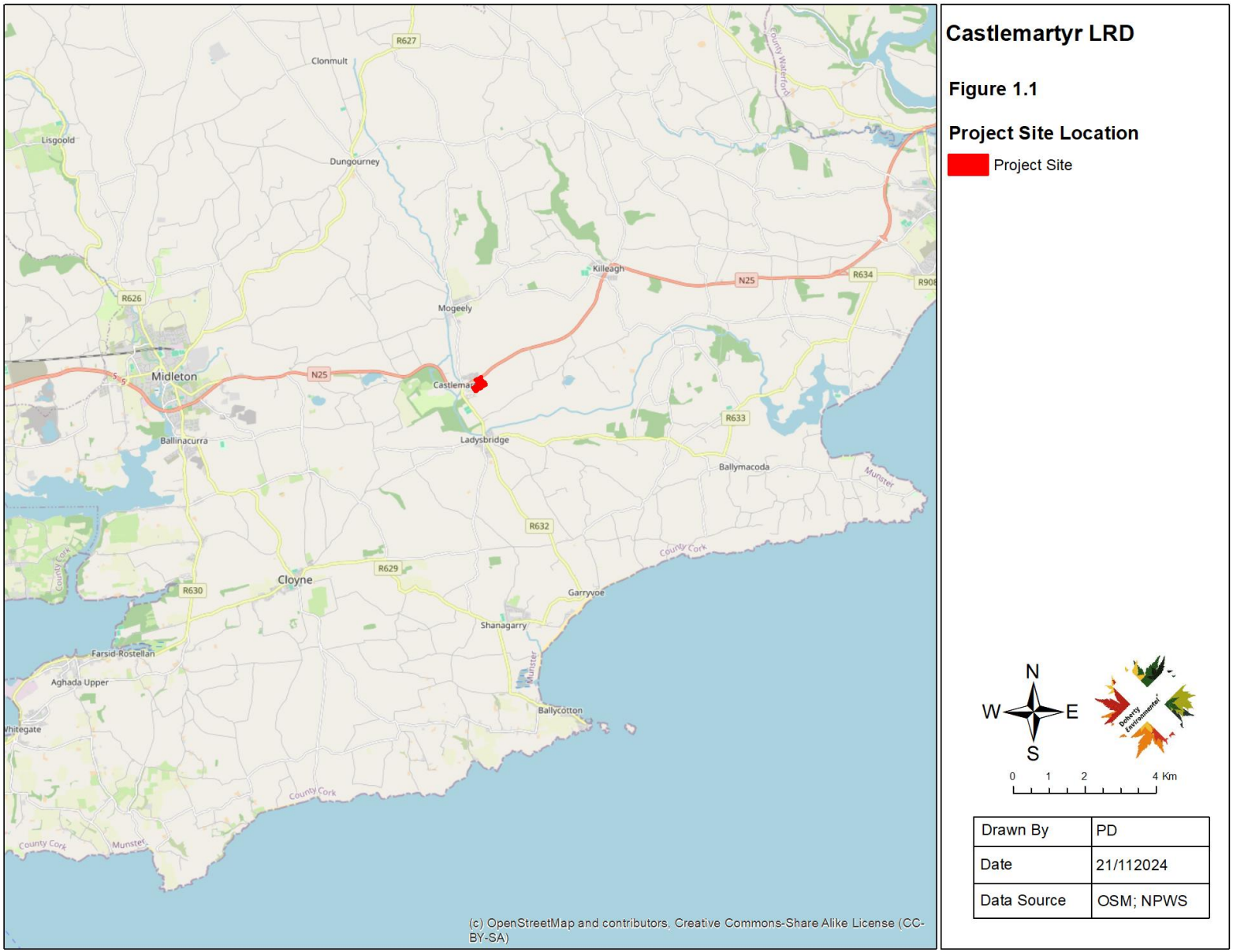
This Screening Report for Appropriate Assessment is being prepared in order to enable the competent authority to comply with Article 6(3) of Council Directive 92/43/EEC (The Habitats Directive). It is prepared to assess whether or not the project alone or in combination with other plans and projects is likely to have a significant effect on any European Site in view of best scientific knowledge and in view of the conservation objectives of the European Sites and specifically on the habitats and species for which the sites have been designated.

1.1.1 Requirement for an Assessment under Article 6 of the Habitats Directive

According to Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 – 2015, the competent authority has a duty to:

- Determine whether the proposed Project is directly connected to or necessary for the management of one of more European Sites; and, if not,

- Determine if the Project, either individually or in combination with other plans or projects, would be likely to have a significant effect on the Eurpoean Site(s) in view of best scientific knowledge and the Conservation Objectives of the site(s).


Castlemartyr LRD
Figure 1.1
Project Site Location
Project Site
Clonmult
R627
Lisgoold
Dungourney
Killeagh
N25
R634
R626
Mogeely
Midleton
N25
Castlemartyr
R633
Ballinacurra
Ladysbridge
Ballymacoda
R632
R629
Cloyne
R630
Garryvoe
Shanagarry
Farsid-Rostellan
Aghada Upper
Ballycotton
Whitegate
County Cork
Munster
N
W
E
S
0 1 2 4 Km
Drawn By PD
Date 21/112024
Data Source OSM; NPWS
(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)


Castlemartyr LRD
Figure 1.2
Aerial View of the Project Site
Project Site
N
W
E
S
0 0.03 0.06 0.12 Km
Drawn By PD
Date 21/11/2024
Data Source Bing

This Report contains a Screening for Appropriate Assessment and is intended to assess and address all issues regarding the construction and operation of the Project and to inform and allow the competent authority to comply with the Habitats Directive. Article 6(3) of the Habitats Directive defines the requirements for assessment of projects and plans for which likely significant effects on European Sites may arise. The European Communities (Birds and Natural Habitats) Regulations, as amended (the Habitats Regulations) transpose into Irish law Directive 2009/147/EC (the Birds Directive) and Council Directive 92/43/EEC (the Habitats Directive) lists habitats and species that are of international importance for conservation and require protection. The Habitats legislation requires competent authorities, to carry out a Screening for Appropriate Assessment of plans and projects that, alone or in combination with other plans or projects, would be likely to have significant effects on European Sites in view of best scientific knowledge and the Site's conservation objectives. This requirement is transposed into Irish Law by Part 5 of the Habitats Regulations and Part XAB of the Planning and Development Act, 2000 (as amended).

1.2 SCREENING METHODOLOGY

This Screening Report has been prepared in order to comply with the legislative requirements outlined in Section 1.1 above and aims to establish whether or not the proposed project, alone or in combination with other plans or projects, would be likely to have significant effects on European Sites in view of best scientific knowledge and the Site's conservation objectives. In this context "likely" means a risk or possibility of effects occurring that **cannot** be ruled out based on objective information and "significant" means an effect that would undermine the conservation objectives of the European sites, either alone or in-combination with other plans and projects (Office of the Planning Regulator (OPR), 2021).

The nature of the likely interactions between the Plan and the Conservation Objectives of European Sites will depend upon the:

- the ecological characteristics of the species or habitat, including their structure, function, conservation status and sensitivity to change; *and/or*
- the character, magnitude, duration, consequences and probability of the impacts arising from land use activities associated with the plan, in combination with other plans and projects.

This Screening Report for Appropriate Assessment has been undertaken with reference to respective National and European guidance documents: Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (DEHLG 2010) and *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC; Office of the Planning Regulator – OPR Practice Note PN01: Appropriate Assessment Screening for Development Management,* and recent European and National case law. The guidance document Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC. European commission (2018) was also of relevance during the preparation of this Screening Report:

The EC (2021) guidelines outline the stages involved in undertaking a Screening Report for Appropriate Assessment for projects. The methodology adopted during the preparation of this Screening Report is informed by these guidelines and was undertaken in the following stages:

1. Describe the project and determine whether it is necessary for the conservation management of European Sites;

2. Identify European Sites that could be influenced by the project;

3. Where European Sites are identified as occurring within the zone of influence of the project identify potential effects arising from the project and screen the potential for such effects to negatively affect European Sites identified under Point 2 above; and

4. Identify other plans or projects that, in combination with the project, have the potential to affect European Sites.

2.0 PROJECT DESCRIPTION

The project consists of a proposal for a Large-scale Residential Development (LRD) comprising the construction of 150 no. residential units, a creche and all associated development works at Gortnahomna More (townland), Castlemartyr, Co. Cork.

2.1 SURFACE WATER MANAGEMENT

2.1.1 Existing Surface Water Infrastructure

The public surface water network maps do not indicate an existing surface water network along the N25 to the north of the application lands. The applicant commissioned topographical and Gound Penetrating Radar (GPR) surveys to identify the extents of any existing networks along the N25. The surveys confirmed the location and extents of an existing 300mm diameter surface water network along the N25 adjacent to the site and discharging to the Kiltha River to the west of the lands. An existing field boundary drain is apparent along the north west boundary of the northern portion of the site. The existing rainfall runoff from the site appears to discharge directly to ground at source or discharge overland to the field boundary drain prior to discharging to ground.

2.1.2 Proposed Surface Water Infrastructure

The design and management of surface water for the proposed development will comply with the requirements of the Greater Dublin Strategic Drainage Study (GDSDS) and the Cork County Development Plan 2022 – 2028. The design of the surface water network and SuDS measures within the application site shall include a 20% climate change factor in accordance and the Cork Co. Co. Water Services requirements.

2.1.3 Principle Design Considerations

Surface water from the proposed residential development will be managed via a surface water network that includes Sustainable Drainage Systems (SuDS). The surface water will be attenuated and controlled on-site before being discharged at a rate lower than the existing run-off rate. This will be achieved as part of the proposed surface water infrastructure design through the interception and attenuation of existing runoff from the N25. The 300mm diameter public stormwater system along the N25 will serve as the discharge point. Water will be conveyed along the existing 300mm stormwater system and will discharge to the Kiltha River to the west of the project site (see Figure 1.3 above).

The development has been split into 6 no. sub-catchment areas for the surface water attenuation design in order to reduce flows within the site. the development surface water catchments are shown on Figure 2.1 below. The post development overland flow route is illustrated on Figure

2.2. The discharge rates will be regulated using vortex flow control devices (Hydrobrakes) and attenuation will be provided using reinforced concrete attenuation tanks (due to the karst risk in the area). The discharge from the site will also pass through a bypass petrol/oil separator, which is sized according to the allowable discharge rate.

Figure 2.1: Development Catchments

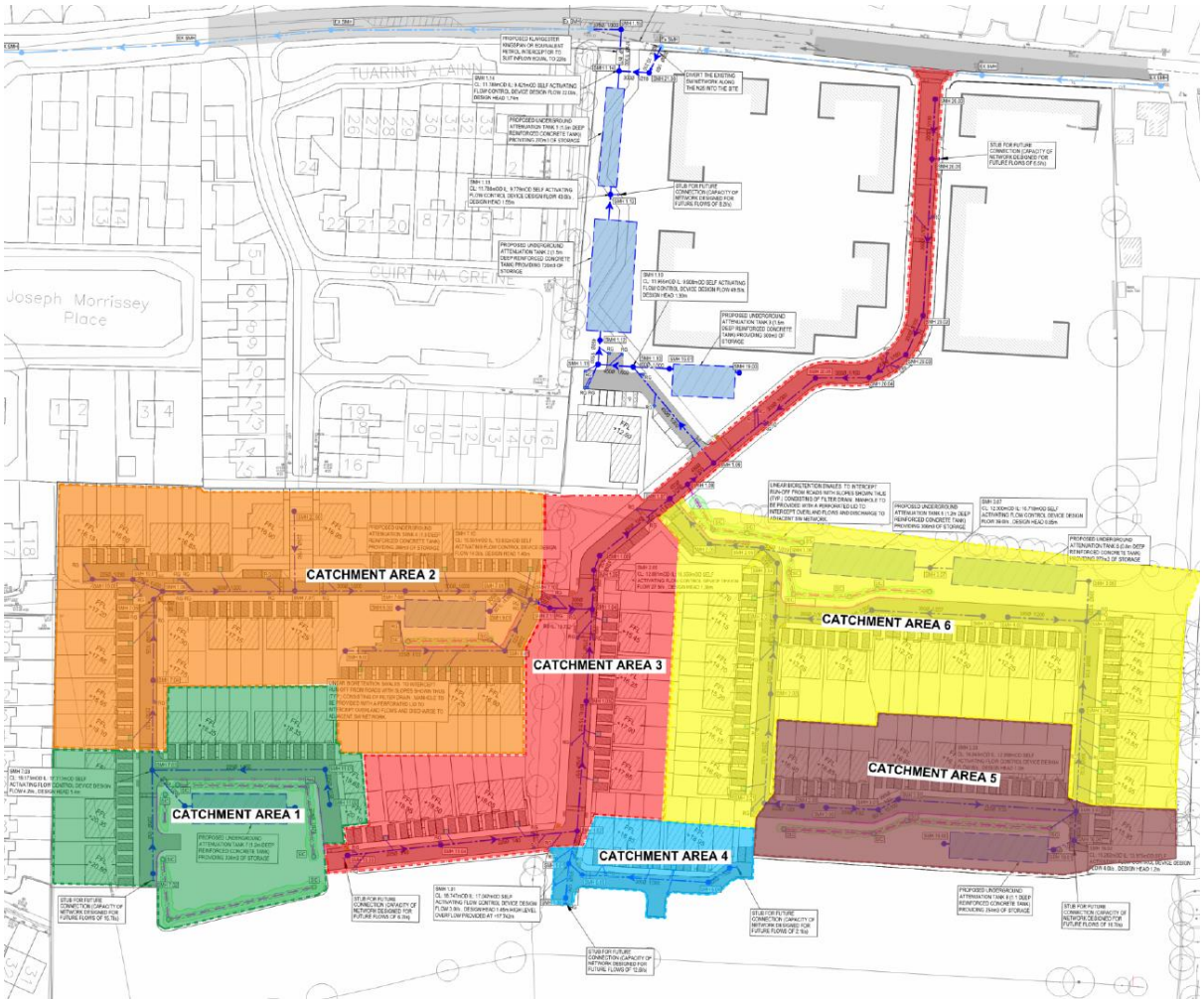


Figure 2.2:Post Development Flow Path

2.2 SUDS

2.2.1 Proposed SuDS Hierarchy

The SuDS hierarchy outlined below has been considered for this site in accordance with the Cork County Council SuDS selection hierarchy for LRD developments. The following SuDS elements form part of the surface water management infrastructure to be provided for the operation phase of the project:

- Source Control
    - Swales

- Integrated constructed tree pits
- Downpipe planters
- Rainwater harvesting
- Permeable pavement
- Bio-retention systems/raingardens
- Filter drains

- Site Control
  - Detention basins

- Other
  - Petrol/oil interceptor/grit trap
  - Attenuation tank

All SuDS measures are described in full in the DOBA Infrastructure Design Report, provided under separate cover with the planning application documentation.

2.3 FOUL WATER DRAINAGE

2.3.1 Existing Foulwater Discharge

The UÉ public maps indicate an existing wastewater drainage network along the N25 Road adjacent to the northern boundary of the application site. Following a site inspection and receipt of the survey drawings, it is apparent that another wastewater network has been constructed along the N25 which commences at the north west corner of the application site.

2.3.2 Uisce Éireann Pre-Connection Enquiry & Confirmation of Feasibility

The Applicant has liaised with Uisce Eireann (UE) in relation to the proposed development and submitted a pre-connection enquiry (PCE) to which UE responded. The Connection & Developer Services (CDS) Response states that a wastewater connection is "feasible subject to upgrades" and "*in order to accommodate the proposed connection at the Development, upgrade works are required to increase the capacity of Castlemartyr WWTP. Uisce Éireann currently has a project underway which will provide the necessary upgrade and capacity. This upgrade project is scheduled to be completed in 2026 (may be subject to change) and the proposed connection could be facilitated as soon as possibly practicable after this date".*

With respect to the examination set out in this report reference is made to a previous planning application for a residential development (in2018) at the project site was refused by An Bord Pleanála (Planning Reference No. 301316-18) on the basis of issues relating to wastewater discharges and potential risks to the Ballymacoda Bay European Sites. It is noted that the previous planning application was completed prior to the receipt of planning approval for the upgrade of the Castlemartyr wastewater treatment plant, which is currently at an advance stage of construction (construction works commenced in September 2023). As such and as per the Uisce Éireann COF, it can now be confirmed that sufficient capacity will be available for the adequate treatment of all wastewater generated by the proposed development. As such the generation of wastewater by the project and its discharge to the wastewater treatment plant will not pose a risk to the water quality of the receiving Kiltha River and will in turn no pose a risk of likely significant effects to the Ballymacoda Bay European Sites downstream. This conclusion is supported by the findings of the Natura Impact Statement prepared for the Castlemartyr WWTP and the Appropriate Assessment determination made by Cork County Council with respect to the wastewater treatment plant upgrade.

2.3.3 Proposed Wastewater Drainage

The proposed wastewater drainage will collect effluent from the residential units via a main wastewater drainage network located within the development's access roads and discharge by gravity to the existing wastewater network to the north of the site as illustrated on DOBA Engineering drawing C-0300. The new wastewater sewer network will be designed in accordance with the principles and methods set out in Irish Water's Code of Practice for Wastewater Infrastructure IW-CDS-5030-03, IS EN 752 Drain & Sewer Systems outside

Buildings, IS EN 12056 Gravity Drainage Systems inside Buildings and the Building Regulations Technical Guidance Document Part H Drainage & Wastewater. The estimated peak Wastewater loading generated by the proposed development's Dry Weather Flow is estimated at 0.61 l/s while the Design Wastewater Flow of 6DWF is 3.63 l/s.

2.4 WATER SUPPLY

2.4.1 Existing Water Supply

An existing 150mm DI watermain was installed along the N25 adjacent to the application site as part of the N25 pavement strengthening scheme undertaken in 2018. The applicant commissioned Metroscan to carry out topographical and Gound Penetrating Radar (GPR) surveys to locate the existing 150mm watermain along the N25. The GPR identified an existing spur off the new watermain extending to the boundary of the application site.

2.4.2 Uisce Éireann Pre-Connection Enquiry

DOBA have liaised with Irish Water (IW) in relation to the proposed development and submitted a pre-connection enquiry to which IW responded with a Confirmation of Feasibility (CoF). The Connection & Developer Services (CDS) Response noted that a new water connection is "Feasible without infrastructure upgrade by Uisce Éireann".

2.4.3 Proposed Water Supply

The proposed water supply networks within the subject site will include a 150mm dia. watermain with 100mm dia. loops, associated connections, valves, hydrants, meters etc. designed in accordance with Irish Water's Code of Practice for Water Infrastructure IW-CDS-5020-03/ Standard Details and the Department of the Environment's Building Regulations "Technical Guidance Document Part B Fire Safety". The site watermain network will adequately serve the firefighting requirements with Fire Hydrants provided on the loop main in accordance with Part B of the Building Regulations. The proposed watermains are illustrated on the DOBA Engineering C-0400 drawing series. The estimated peak hour water demand generated by the proposed development is 4.69 l/s.

2.5 LANDSCAPING

The Landscape masterplan has been developed with a strong emphasis on the importance of the application site within the Green infrastructure network. The existing hedgerows form a strong component of the overall plan, helping to bed the development in the existing environment. The open space is mainly consolidated to 4 zones to give maximum park frontage for the dwellings. The allocated communal space within that includes informal and formal play provision dotted throughout as well as some flexible spaces for amenity activities like exercise as well as quieter areas with seating. Routes through the open spaces offer pleasant & accessible access throughout the site, creating a variety of experiences throughout, including semi-formal 'manicured' spaces, wilder areas with reduced mowing & pockets of wooded areas. Future pedestrian connections to the existing estates to the North & West form a pedestrian street typology with the opportunity for additional greening and seating. A strong boundary condition is proposed to set the development to create a suitable link to the main road and improve the quality of the road edge. A pedestrian link with a cycleway, planting and play features is proposed to link the development to the main road. The willow area is proposed as an additional amenity & nature space.

Bee orchid (*Ophrys apifera*) has been recorded within the project site. A total of 25 no. flowering spikes were recorded in the area of recolonising bare ground/spoil and bare ground occurring to the north of the project site. As part of the landscape plan it is proposed translocate the existing stand of bee orchid from their current position to an area of landscaped verge to be provided as part of the landscape design. The bee orchid will be positioned on free draining soils with an unshaded south facing aspect. It will be planted with a mix of other small herb species. The receptor area will be subject to a mowing regime to maximise suitability of the receptor area for bee orchid on an ongoing basis. This will comprise mowing twice yearly, during early spring and autumn. A key element of the mowing regime will be the lifting of all cutting from the receptor area and disposal elsewhere. No cutting will be lift within the receptor area.

2.6 LIGHTING

The Outdoor Lighting Schemehas taken into account best practice, as published by the UKBat Conservation Trust, in respect of a design strategy to minimise the impact of outdoor lighting upon bat populations.

LED type lanterns, of the Warm White type, have been specified, with a Colour Temperature of 3,000K, as is considered least disruptive to the emergence of bats from roosts at dusk, and subsequent movement from habitats to foraging locations. LED lanterns do not emit any ultr aviolet or infra-red radiation, this again being a desirable feature in relation to impact upon bats, in terms of c ausing spatial exclusion from artificially lit areas. Light levels have been kept as low as possi ble by reference to levels specified in BS EN 5489-1: 2020 for trafficked roads in residential areas. Lanterns are of the fully cut off type with n o light output above the horizontal plane. In addition to the low illuminance level of the (LE D) adjusted P3 Lighting Class selected, dimming of the light levels to Class P4 between 23.0 0 hrs. and 06.00hrs. has been specified to further reduce the environmental impact of the sche me.

2.7 CONSTRUCTION PHASE

2.7.1 Construction Phasing

The delivery of the proposed development will be completed over 2 no. phases as shown on Figure 2.1 below. A key element of the construction phase with regard to the landscape plan set out above will be the provision of a receptor area for the rare bee orchid occurring on site. The existing stand of bee orchid on site will be identified and fenced off prior to the commencement of construction works. The receptor area as indicated on the landscape masterplan will be prepared and provided at the commencement of the construction phase. Once the receptor area is in place, the existing stand of bee orchid on site will be translocated to the receptor area. The translocation will be completed by lifting the soil layer at and surrounding the existing stand of bee orchid as turves and inserting the turves to the receptor area. Turves will be lifted as a minimum size of $0.5m^2$ in surface area and to a depth of 0.3m, or to the maximum depth of the soil layer where the overburden is less than 0.3m. Once the bee orchid is translocated to the receptor area, the latter will be fenced off and treated as a ‘no-go’ area during the construction phase. Further information with respect to the translocation of bee orchid is set out in the Ecological Impact Assessment for the project, provided under separate cover with the planning application documentation.

Figure 2.3: Proposed Phasing

2.7.2 Construction Access

It is proposed that the site will be accessed from the north via a new entrance point and priority junction along N25 Killeagh Road which is illustrated within the engineering documents prepared by Donnchadh O'Brien and Associates Consulting Engineers.

2.7.3 Perimeter Fencing

The first task in the construction phase will be to erect a stock-proof fence along the perimeter boundary of the development. This stock proof fence will be such that small and medium sized mammals will not become trapped inside the construction area. This boundary fence will primarily restrict public access to the work area.

2.7.4 Demolition Works

The construction of the proposed development does not involve the demolition of buildings,

3.0 DESCRIPTION OF THE SITE LOCATION

3.1 REVIEW OF HISTORICAL MAPS

A review of historical mapping (6-inch colour map 1829 to 1842; 6-inch Cassini, 1830's) and the 25 inch map, 1888 to 1913) for the site indicates that the site was enclosed and subdivided into agricultural fields with hedgerow field boundaries by the early 1800's. At this stage the northern 'field' of the project site was subdivided into two no. fields; the southwest field is depicted on the first 6 inch map as it is today; whilst the southeast field was subdivided into 4 no. smaller fields. The arrangement of the field pattern at the project site changed by the time of the publication of the 25 inch map in 1899. By this time the northern field was amalgamated into a large field stretching towards the cross roads at Castlemartyr. The 4 no. small fields in the southeast of the project site were amalgamated into the one field, as it is today.

The 1995 satellite imagery for the site shows northern field forming the eastern half of a larger field that stretched west from the project site boundary. The two southern fields within the project site remained unchanged from those depicted on the historical mapping. The 2001 – 2005 imagery shows the commencement of housing development within the western half of the larger field, that spread east into the project site. Residential development continued to be

development between 2001 and 2018, establishing the existing footprint of residential land cover to the west and north of the project site. The latest Ordnance Survey Ireland aerial imagery for the site from 2013 – 2018 shows the presence of the existing hedgerow field boundaries, and indicates the presence of arable land in the two southern fields, whilst the northern field appears to comprise a mix of rough grassland and small patches of scrub. This imagery does not indicate the presence of the area of willow scrub that now occupies the southern extent of the northern field, indicating that this scrub habitat has become established in the last 6 to 10 years.

3.2 GEOLOGY OVERVIEW

The bedrock underlying the site changes from north to south, with Massive and crinoidal fine limestone of the Little Island Formation occurring within the project site to the north. A band of Red brecciated calcilutite limestone of the Cork Red marble Formation occupies the southern portion of the project site's northern 'field' that is now largely colonised by willow scrub woodland, as well as the northern portion of the southwestern field and the majority of the southeastern field. To the south of this band the bedrock consists of Massive unbedded lime-mudstone of the Waulsortian limestone.

The subsoils are dominated by till derived from Devonian sandstone, while the soils are dominated by acid brown earth. The Geological Survey of Ireland (GSI) map viewer does not indicate the presence of any wells within the project site.

The project site is located within the Midleton Groundwater body (IE_SW_G_058) which encompasses the limestone valley from Midleton in the west to Youghal in the east. Groundwater vulnerability underlying the subject lands ranges from Medium to High. Two no. karst features are identified by the GSI to the south of the project site. These are both enclosed depressions (ID no. IE_GSI_Karst_40K_15432 & IE_GSI_Karst_40K_15613). The GIS note in their first draft Midleton GWB Description that the nature of the karstic system occurring at and surrounding the project site leads to rapid interchanges of water between surface and underground. Swallow holes and caves receive surface water, and groundwater is discharged to surface as springs or as baseflow to rivers crossing the groundwater body. As such it is likely that surface waters draining to ground at the project site are likely to discharge to the Kiltha River to the west or the Dower River, which is located at a greater distance (c. 800m) to the east.

3.3 HYDROLOGY

The site is located within Hydrometric Area 19 Lee, Cork Harbour and Youghal Bay. It is located within the Womanagh_SC_010 sub-catchment. There are no watercourses occurring within or bounding the project site. The nearest watercourse to the project site is the Kiltha River, located approximately 315m to the west. No surface drains occur at the project site.

A Site-Specific Flood Risk Assessment (SSFRA) has been prepared by JBA (provided under separate cover with the planning application documentation) and submitted with the Application documentation which summarises that the proposed residential portion of the development is situated within Flood Zone C and is not at risk of flooding arising from Tidal, Fluvial, Pluvial, Groundwater or Human/ Mechanical Error sources.

3.4 DESIGNATED CONSERVATION AREAS

No European Sites occur at or in the wider area surrounding the project site. The nearest European Sites to the project site are the Ballycotton Bay SPA (Site Code: 004022), approximately 6.7km to the south and the Ballymacoda (Clonpriest and Pillmore) SAC (Site Code: 000077) and SPA (Site Code: 004023) to the east.

There are no NHAs occurring in the wider area surrounding the project site. The nearest proposed NHA (pNHA) to the project site is the Clasharinka Pond pNHA, located approximately 200m to the east. The next pNHA is the Loughs Aderry and Ballybutler, located approximately 2.5km to the west.

3.5 LAND COVER & HABITATS

The current land cover within the project site is characterised by arable land bounded by hedgerows in the two southern fields. The northern ‘field’ consists of areas of spoil and bare ground, recolonising bare ground and immature willow scrub. The extent of each habitat occurring within the project site is shown on **Figure 3.3** Habitat Map. Hedgerows bound the site, whilst one number hedgerow, orientated north to south separates the southwestern and southeastern fields of the project site. These hedgerows are shown on historical maps and are of local value from a historical boundary perspective. They are considered to be of local

importance (higher value) (Rating D)[1]. The existing hedgerows on site will be largely retained and as such the potential impact of the proposed development to this habitat will be minor.

An area of species-poor willow (Salix aurita & Salix cinerea) has become established on site in recent years. As noted in Section 3.1 above this scrub habitat is not apparent in the latest OSI aerial imagery and is likely to have become established in the last 6 to 10 years. The scrub habitat is dense with high levels of shading resulting a depauperate and species-poor herb layer. Informal desire line paths are established within the existing willow scrub habitat, indicating its current use as an informal recreational area. The willow scrub habitat is of local importance (higher value) owing to the habitat it provides for fauna species. As part of the landscape plan for the project the woodland habitat will be largely retained within the existing footprint of the willow scrub habitat and will be buffered to the south along the existing hedgerow bounding the south of this area. This buffer has been designated as an ecological corridor (Open Space B) in the landscape plan. Given the approach to the retention of the willow scrub habitat and the provision of an additional and contiguous ecological corridor buffering this area to the south, the potential impact of the proposed development to this habitat will be negligible.

Other habitats occurring within the project site include dense and species-poor bramble and gorse scrub; recolonising bare ground; spoil and bare ground and arable land. These habitats are of Local importance (lower value) (Rating E).

[1] **Evaluation is as per the NRA Guidelines for the Assessment of Ecological Impacts of National Road Schemes**

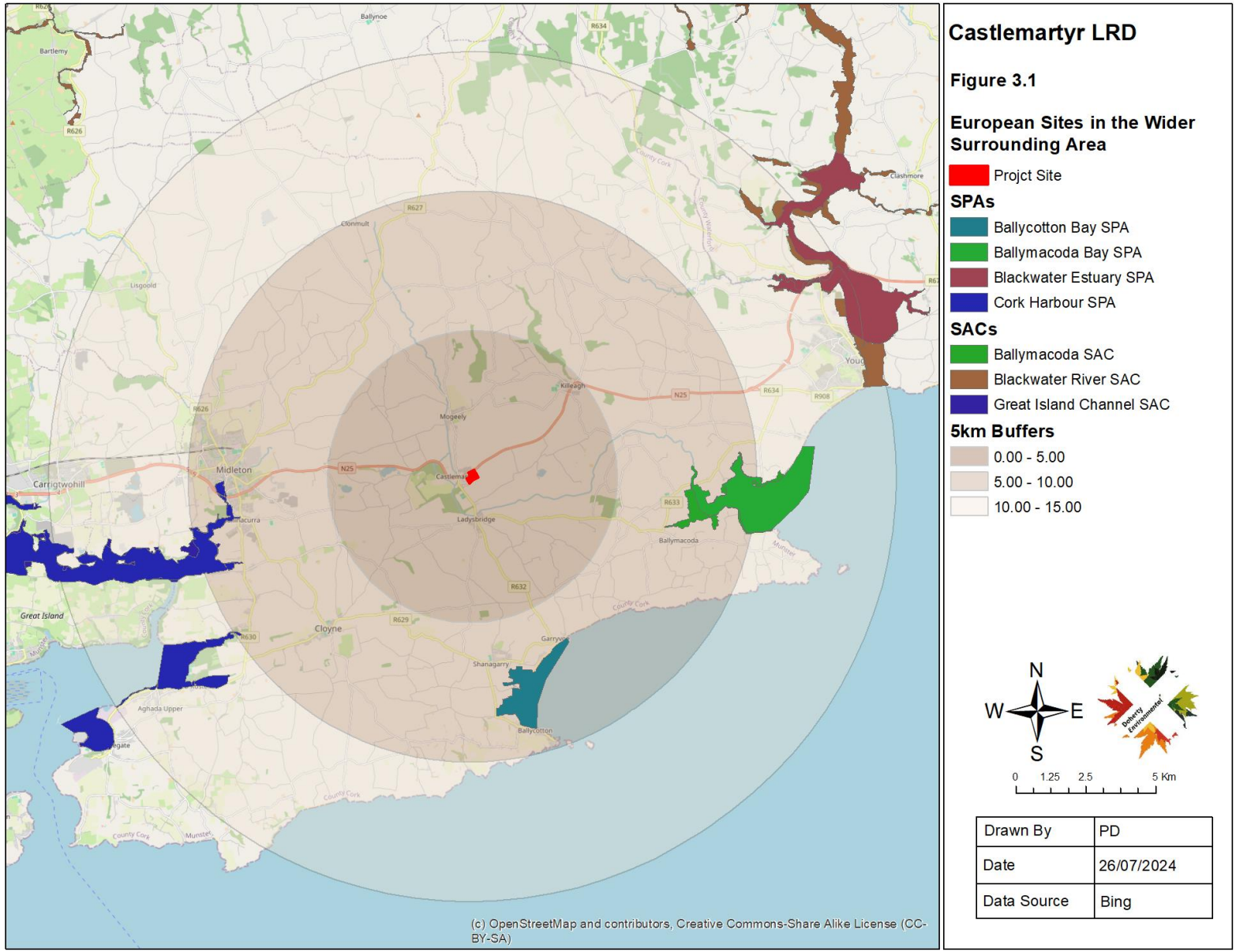

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Figure 3.1
European Sites in the Wider Surrounding Area
Projct Site
SPAs
Ballycotton Bay SPA
Ballymacoda Bay SPA
Blackwater Estuary SPA
Cork Harbour SPA
SACs
Ballymacoda SAC
Blackwater River SAC
Great Island Channel SAC
5km Buffers
0.00 - 5.00
5.00 - 10.00
10.00 - 15.00
N
W
E
S
0 1.25 2.5 5 Km
Drawn By PD
Date 26/07/2024
Data Source Bing
(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)
Midleton
Carrigtwohill
Cloyne
Ladysbridge
Ballymacoda
Great Island
Killeagh
Mogeely
Castlemartyr
Shanagarry
Ballycotton
Aghada Upper
Clonmult
Lisgoold
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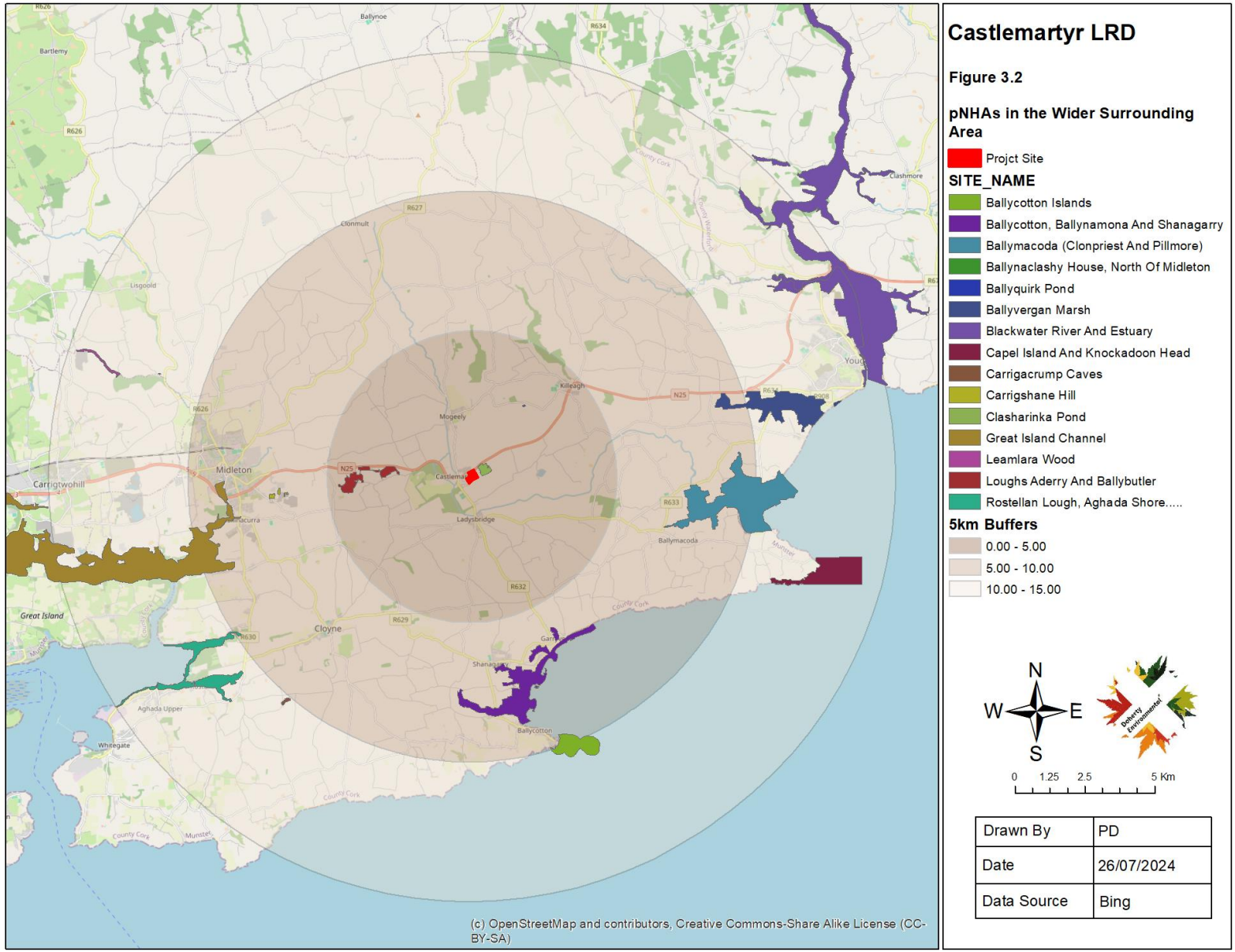
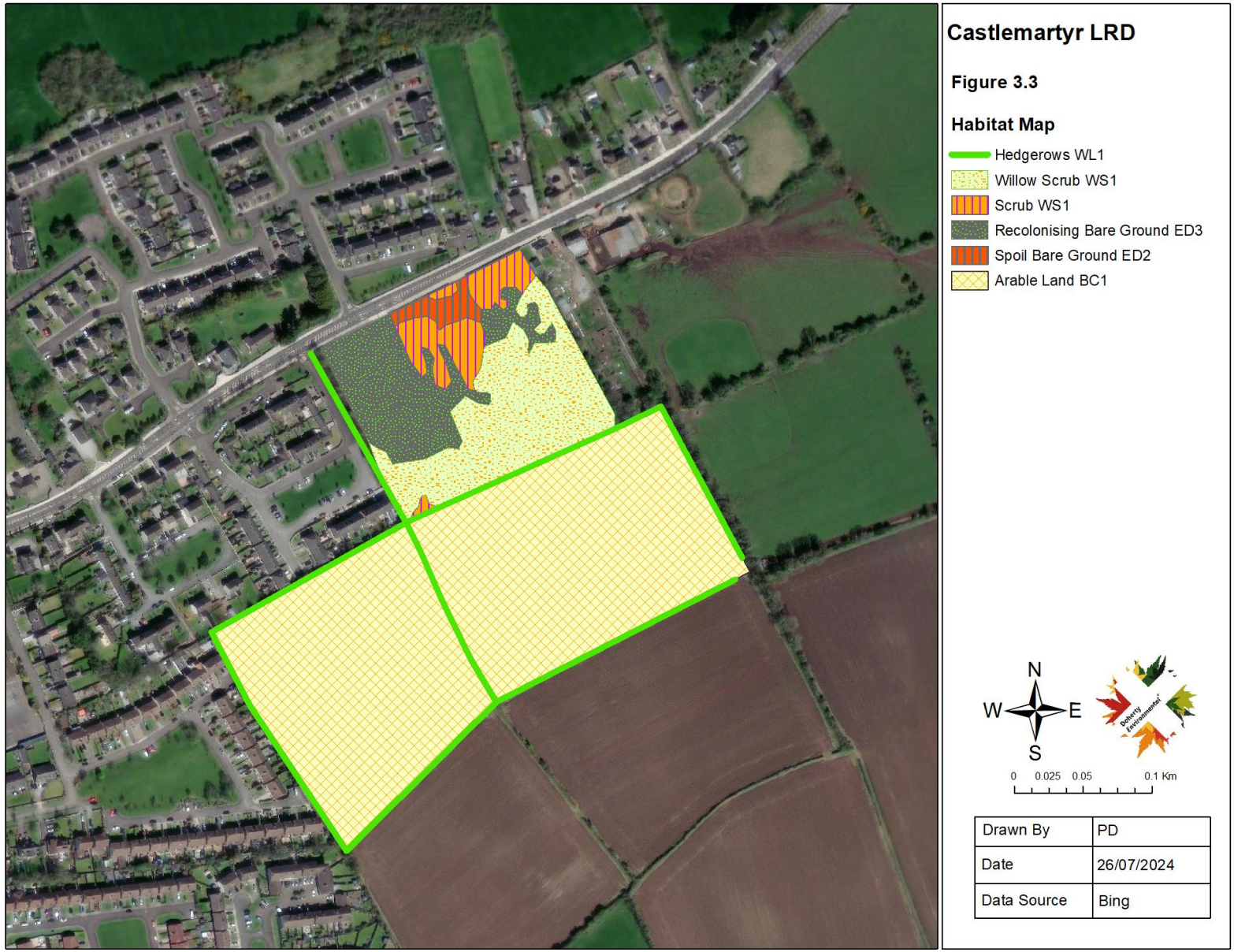
Garryvoe
Munster
County Cork


Castlemartyr LRD
Figure 3.2
pNHAs in the Wider Surrounding Area
Projct Site
SITE_NAME
Ballycotton Islands
Ballycotton, Ballynamona And Shanagarry
Ballymacoda (Clonpriest And Pillmore)
Ballynaclashy House, North Of Midleton
Ballyquirk Pond
Ballyvergan Marsh
Blackwater River And Estuary
Capel Island And Knockadoon Head
Carrigacrump Caves
Carrigshane Hill
Clasharinka Pond
Great Island Channel
Leamlara Wood
Loughs Aderry And Ballybutler
Rostellan Lough, Aghada Shore.....
5km Buffers
0.00 - 5.00
5.00 - 10.00
10.00 - 15.00
N
W
E
S
0 1.25 2.5 5 Km
Drawn By PD
Date 26/07/2024
Data Source Bing
(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)


Castlemartyr LRD
Figure 3.3
Habitat Map
Hedgerows WL1
Willow Scrub WS1
Scrub WS1
Recolonising Bare Ground ED3
Spoil Bare Ground ED2
Arable Land BC1
N
W
E
S
0 0.025 0.05 0.1 Km
Drawn By PD
Date 26/07/2024
Data Source Bing

3.6 FAUNA

3.6.1 Non-volant mammals

No evidence indicating the presence of protected non-volant mammals, such as badgers, has been recorded within the project site during field surveys completed monthly between April and July 2024. Rabbits are presence within the site, particularly in the northern field. The scrub and hedgerow habitat on site provides suitable habitat for small mammals such as hedgehog, shrew and wood mouse etc. Given the approach to the landscaping plan with the retention of the majority of hedgerow field boundaries as well as the willow scrub and the provision of addition landscape green space such as the ecological buffer, combined with the sensitive approach to the lighting design, the potential impact of the proposed development to non-volant mammals will be low and insignificant.

3.6.2 Bats

There are no structure on site and as such there is no potential for roosting to occur in buildings within the project site. Mature trees occur along the hedgerows within the project site, particularly along the eastern site boundary bounding the arable field. Roost emergence surveys were completed along this hedgerow boundary during bat survey completed in June and July and no bats were recorded emerging from these trees. On the basis of manual bat surveys completed to date the mature trees occurring within the hedgerow field boundaries do not function as bat tree roosts.

Levels of foraging activity by bats recorded during manual foraging activity surveys during May, June and July were found to be low. Species recorded were dominated by Soprano pipistrelle, Common pipistrelle and Leisler's bat with a very low number of calls assigned to Myotis species.

Given the approach to the landscaping plan with the retention of the majority of hedgerow field boundaries as well as the willow scrub and the provision of addition landscape green space such as the ecological buffer, combined with the sensitive approach to the lighting design, the potential impact of the proposed development to bat species will be low and insignificant.

3.6.3 Birds

A range of bird species have been recorded on site during monthly surveys completed between April and July 2024. Species recorded comprise blue tit, bull finch, chaffinch, chiffchaff, coal tit, blackbird, great tit, greenfinch, song thrush, magpie, hooded crow, house sparrow, starling, swallow, yellowhammer, whitethroat, wood pigeon and wren.

All of the above species recorded on site during surveys are green listed and of low conservation concern with the exception of house sparrow, starling and swallow which are amber listed species of medium conservation concern and yellowhammer which is red listed of high conservation concern. It is noted that yellowhammer was heard calling on site during field surveys completed in June 2024. It was not heard calling during other monthly surveys in April, May and July. This result is indicative of possible breeding behaviour at the site. It is noted that the loss of arable land to the footprint of the proposed development will result in a loss of suitable habitat for yellowhammer. However given the small area of arable land to be lost to the proposed development, in the context of the extensive and widespread availability of this habitat in the surrounding area, the impact of this loss for yellowhammer will be insignificant and will not undermine the conservation status of this species at the local scale.

With respect to other bird species occurring at the project site the proposed approach to the landscape masterplan, which will retain the majority of hedgerows and existing willow scrub and provide additional habitat in the form of the ecological buffer, the impact to these species is considered to be low and insignificant.

3.7 FLORA

3.7.1 Rare & Protected Flora

As noted in Section 2 above the relatively rare bee orchid (*Ophrys apifera*) has been recorded on site with a total of 25 no. flowering spikes being observed during surveys in May and June 2024. The distribution of this species within the project site is shown on Figure 3.4 below.

The landscape masterplan has been prepared to establish suitable conditions for the retention of this species on site. The provision of suitable verge habitat that will be maintained in a

Castlemartyr LRD

Figure 3.4

Bee Orchid Distribution

Bee Orchid Castlemartyr

No = No. of Flowering Spikes

N
W E
S

0 0.015 0.03 0.06 Km

Drawn By	PD
Date	06/08/2024
Data Source	Bing

condition optimal for sustaining this species on site. The species will be protected during the construction phase as set out in Section 2.7 above and will be translocated to the receptor area in line with the approach outlined. The implementation of this approach will provide for the protection of this species as part of the proposed development.

3.7.2 Non-native invasive plant species

No high impact non-native invasive plant species have been recorded at the project site during baseline surveys between April and July 2024. One medium impact species, namely Buddleja davidii has been recorded on site. *B. davidii* is native to China and was first recorded in Ireland in the 1950's. It was introduced as a garden ornamental and is widely planted as a landscape garden ornamental throughout Ireland. It establishes readily on naturally or on anthropogenically disturbed sites such as quarries, urban waste grounds, abandoned cultivated areas, clearcut forests, along railway lines etc. (Tallent-Halsell & Watt, 2009).

In the UK and Ireland naturalised *B. davidii* plants retain seeds on the plant throughout winter and then release the seeds in early spring into summer (Tallent-Halsell & Watt, 2009). Large numbers of seeds are produced by each of the flowering spikes on the plant and the lightweight, winged nature of the seeds facilitates dispersal. Seeds can remain viable for three to five years. Plants also readily reproduce asexually from stem and root fragments and can regenerate from buried stems, stumps and roots soon after disruption.

No precise studies have been done on the level of impact of *B. davidii*, likely due to its long history of naturalisation (Talent-Hassell & Watt, 2009), but it is likely to displace native plants where it is present. It has been assessed as having a Medium Risk of impact as an invasive species by the National Biodiversity Centre (Invasiveness Risk Score of 15).

All *B. davidii* plants will be marked out with visible markings prior to the commencement of felling. Strips of hazard tape will be tied to each plant so that they are visible to the site clearance operatives.

In order to minimise the dispersal of seed it is recommended that *B. davidii* is felled on site and stockpiled locally to the area it which it is felled. Freshly cut plant material will not be transported large distances across the site to minimise the spread of seed. Other plant material can be deposited on top of the *B. davidii* so that the cut plant material buried beneath this

material. The stockpiles containing *B. davidii* at the base should be left undisturbed on the ground for a period of one week to whither. Once whithered the stockpiles containing felled *B. davidii* material can be removed for disposal.

To minimise the dispersal of seed, the felling of *B. davidii* be undertaken during period of prevailing calm conditions.

The implementation of these measures will ensure that the proposed development will not result in the risk of spread of this species.

4.0 IS THE PROJECT NECESSARY FOR THE CONSERVATION MANAGEMENT OF EUROPEAN SITES

The project has been described in Section 2 of this Screening Report and it is clear from the description provided that the project is not directly connected with or necessary for the future conservation management of any European Sites.

5.0 EUROPEAN SITES

5.1 WITHIN/ADJOINING EUROPEAN SITES

Current guidance (OPR, 2021) informing the approach to screening for Appropriate Assessment defines the zone of influence of a proposed development as the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. It is recommended that this is established on a case-by-case basis. In order to identify European Sites that could potentially be located within the zone of influence of the project, the current digital mapping (shapefile) of European Sites in Ireland[2], as published by the NPWS, was reviewed to identify the European Sites that could conceivably be connected to the project site via pathways. The OPR guidelines recommend that for projects that are located within or immediately adjacent to European Sites, the relevant

[2] Current SAC shapefile layer dated April 2022; current SPA shapefile layer dated October 2021

European Site should be automatically selected for consideration in the screening exercise. Given that no element of the project occurs within or adjoining a European Sites, the automatic selection of European Sites for further consideration is not triggered. In view of this, this screening exercise will turn its attention to identifying the European Sites that fall within the zone of influence of the project by virtue of pathway connections between the project and European Sites. A Source-Pathway-Receptor model is used to identify the European Sites within the zone of influence of the project.

5.2 SOURCE-PATHWAY-RECEPTOR MODEL

The OPR Guidelines recommend that the zone of influence is established on a case-by-case basis using the Source-Pathway-Receptor (SPR) model. All European Sites in the wider area surrounding the project site are shown on Figure 3.1 and Figure 3.2 above.

Under the SPR model the project, the works associated with the construction and the operation of the project represent the source of potential impacts. Pathways are represented by vectors that could potentially convey impacts from the project site to European Sites and features of interest. The receptors are European Sites and their features of interest. The type of pathways that could represent vectors for the conveyance of impacts are considered in Section 5.2.1 below.

5.2.1 SPR Model Pathways

Pathways that can arise as a result of development projects and lead to offsite/downstream impacts are listed below and an appraisal of the potential for these pathways to connect the project to European Sites and their qualifying features of interest are also listed below and each are examined for their potential to function as pathways connecting the project to European Sites.

5.2.1.1 Emissions to Surface water

As detailed in Section 3.3 no surface waters in the form of rivers, streams or artificial drainage ditches occur at or bounding the project site. Given the absence of such features within or bounding the project site, during the construction phase there is no potential for the project site

to result in the emissions to surface water and for a surface water pathway to connect the project to European Sites in the wider surrounding area.

For the operation phase it is proposed to discharge surface water generated at the project site to an existing 600mm sewer pipe along the N25 road to the north of the project site. This existing sewer pipe drains surface water to the west and discharges to the Kiltha River. The Kiltha River in turn drains to the Ballymacoda Bay European Sites. As such there is a hydrological pathway connecting the project site to the Ballymacoda Bay European Sites. The potential for this operation phase surface water pathway to function as an impact pathway requires further examination as part of this screening exercise.

For the operation phase wastewater generated at the project site will be directed to the foul water infrastructure and conveyed to the Castlemartyr WWTP to the west of the project site. The receiving water for the wastewater treatment plant effluent is the Kiltha River, which drains to the Womanagh River and the Ballymacoda Bay European Sites downstream.

5.2.1.2 Emissions to Groundwater

As set out in Section 3.2 above the project site is underlain by limestone bedrock with karst geology occurring under and surrounding the project site. As noted in Section 3.2 given the nature of the karstic system occurring at and surrounding the project site leads to rapid interchanges of water between surface and underground. Swallow holes and caves receive surface water, and groundwater is discharged to surface as springs or as baseflow to rivers crossing the groundwater body. As such it is likely that surface waters draining to ground at the project site are likely to discharge to the Kiltha River to the west or the Dower River, which is located at a greater distance (c. 800m) to the east. Both watercourses drain to the Womanagh River, which in turn drains to the sea at Ballymacoda Bay. Both the Ballymacoda Bay SAC and the Ballymacoda Bay SPA are located at Ballymacoda Bay. As such, following a precautionary approach, a groundwater pathway is identified as connecting the project site to the Ballymacoda Bay SAC and the Ballymacoda Bay SPA.

5.2.1.3 Noise & Vibration Emissions

Noise and vibration emissions are considered to have the potential to result in negative impacts to biodiversity up to a 300m distance from the emission source. This distance is based on the

maximum noise disturbance zone of 300m for wetland bird species, as specified by Cutts et al. (2013)[3]. Noise and vibration effects for other qualifying species as well as qualifying habitats of European Sites are less than 300m. For mammal species listed as qualifying features of interest for SACs in the surrounding area this distance is set at 150m, as per the NRA (2009). For qualifying aquatic species, a potential noise and vibration impact pathway will only arise where works such as piling or blasting are proposed at instream or bankside locations within adjoining SACs. No such proposals form part of the project. No European Sites occur within such distances of the project and the potential for works associated with the project to result in disturbance to qualifying features of interest of European Sites as a result of noise or vibration emission will not arise. In view of this a noise and vibration pathway is screened out.

5.2.1.4 Emissions to Air

Air emissions identified as having the potential to arise from the project relate to the generation of dust emissions during the construction phase. Dust emissions can have the potential to result in negative impacts to biodiversity up to 50m from the source of the emission. This is supported by the guidance outlined by Holman *et al.* (2014), which provides a risk assessment for ecological impacts arising from dust deposition. European Sites are ranked as highly sensitive sites and the risk to high sensitive sites ranges from high (at less than 20m from source) and medium (at less than 50m from source), while low risks, representative of insignificant and de-minimis effects, arise at distances greater than 50m from source. No European Sites occur within such distances of the project and the potential for works associated with the project to result in disturbance to qualifying features of interest of European Sites as a result of air emission will not arise. In view of this an air emission pathway is screened out.

[3] It is noted Nature Scotland (2022) published disturbances zones for bird species at a greater distance than 300m. However, unlike Cutt et al. (2013) who specifically examined disturbance effects generated by noise stimuli, the potential disturbance stimuli set out in the Nature Scotland publication are not concerned specifically with noise stimuli. As such the Cutts et al. (2013) publication and maximum noise disturbance distance is relied upon.

5.2.1.5 Light Emissions

The project will include for the provision of nighttime lighting along access road to the proposed residential development. Given the distance between the project site and the nearest European Sites, approximately 7km away, night time lighting associated with the project will not have the potential to result in emissions to any European Sites.

5.2.1.6 Visual Emissions

Given the distance between the project site and the nearest European Sites, approximately 7km away, night time lighting associated with the project will not have the potential to result in emissions to any European Sites. .

5.2.1.7 Mobile Species Pathways

Development projects that are located outside of European Sites can also result in impacts to mobile qualifying species of European Sites in the event that such species rely on habitats occurring within the proposed development site. For the purposes of including such a scenario in the consideration of potential pathways, this screening report refers to the reliance of mobile qualifying species of European Sites on the project site as a "mobile species pathway". When considering the mobile species pathway, the following publications were used to identify the presence of European Sites within the zone of influence of the project:

For special conservation interest bird species: the maximum disturbance distance for special conservation interest bird species of SPAs in the surrounding area is considered to be 300m, in line with the Cutts et al. (2013) toolkit. Given that no SPAs occur within 300m of the project site, no mobile species pathway is established by special conservation interest bird species between the project site and SPAs.

For otters and other Annex 2 fish species where a hydrological pathway connecting the project and any European Sites designated for their role in supporting populations of otters and such fish species. The only European Sites that is connected to the project via a groundwater pathway is the Ballymacoda Bay SAC. This SAC is not designated for its role in supporting population of otters or Annex 2 fish species. As such no mobile species pathway is established by these Annex 2 species between the project site and SACs.

5.2.1.8 Spread of non-native invasive species

No high impact non-native invasive plant species have been recorded at the project site during baseline surveys between April and November 2024. One medium impact species, namely Buddleja davidii has been recorded on site. Given the distance of the project site from the nearest European Sites (>6km) and the absence of any adjacent watercourse that could act as conduits for the conveyance of Buddleja davidii seed the project will not have the potential to result in the spread of Buddleja davidii from the project site to European Sites in the wider surrounding area. It is further noted that the transitional saline habitats occurring at the Ballymacoda Bay European Sites do not provide suitable conditions for the growth of Buddleja davidii.

5.2.1.9 Summary of Pathway

Following the above consideration of pathways that could conceivably connect the project site to European Sites in the wider surrounding area it has been found that the only pathways with such potential are:

Surface water pathway with potential to connect the project to the Ballymacoda Bay European Sites.

Groundwater pathway with potential to connect the project to the Ballymacoda Bay European Sites.

6.0 IDENTIFICATION OF LIKELY SIGNIFICANT EFFECTS

The potential environmental effects generated by the project will be restricted to potential emissions to groundwaters from the project site during the construction phase and/or operation phase and surface water discharge from the project site during the operation phase. During construction the project will have the potential to result in impacts to water quality of the Ballymacoda Bay European Sites.

Surface water generated during the construction phase will ultimately be discharged to ground and underlying groundwaters associated with the local karst systems. Potentially contaminating materials, such as hydrocarbons, cement-base materials, other construction-related solutions

and silt will occur on site during the construction phase and will have the potential to become entrained in and pollute groundwaters in the event of untreated and unimpeded contact with karst systems. This water will be discharged via groundwater pathways to intercepting watercourses, namely the Kiltha and Dower Rivers. During the operation phase surface water will be generated from areas of hard standing that will accommodate the hardstanding area of the proposed development. In the event of fuel leaks or accidental spill the potential will exist for the generation of contaminated surface waters on site. In the event that untreated and unimpeded pathways connect surface drainage waters to the underlying karst systems, then a pollution pathway between the project site and the Kiltha and Dower Rivers will arise. Similarly in the event that contaminated surface water is generated during the operation phase , in the absence of adequate treatment, the water will drain to the surface water infrastructure and the 600mm sewer along the N25 to north, from where it will discharge to the Kiltha River.

While it is acknowledged that the volume of surface drainage waters discharging from the project site to the receiving groundwater body, the Kiltha and Dower Rivers and downstream to the Womanagh River and Ballymacoda Bay will be miniscule in the context of the overall waters draining from the surrounding catchment to Ballymacoda Bay, in the absence of appropriate safeguards the potential will exist for the discharge of pollutants that could perturb water quality.

A wastewater pathway has been identified between the project site and the Ballymacoda Bay European Sites. All wastewater generated at the project site will be conveyed to the Castlemartyr wastewater treatment plant. The treated effluent from the treatment plant is discharged to the Kiltha River which in turn drains to the Ballymacoda Bay European Sites. Uisce Éireann have confirmed that sufficient capacity will be available at the wastewater treatment plant to adequately treat all wastewater loads generated by the project. As set out in Section 2.3.2 above planning permission has been granted for the upgrade of the wastewater treatment plant and construction works commenced at the plant in September 2023. An Natura Impact Statement was prepared for the wastewater treatment plant upgrade planning application and based on the evidence gathered for that examination it stated that the upgrade would improve the quality of discharge from the treatment plant and will not threaten the Womanagh River. Cork County Council completed an Appropriate Assessment of the treatment plant upgrade and determined that it will not have the potential to result in adverse effects to the Ballymacoda Bay European Sites. In view of these findings and the COF issued by Uisce

Éireann it can be concluded that wastewater generated by the project and conveyed to treatment plant will not pose a risk to the water quality of the Kiltha River, the Womanagh River downstream and will not have the potential to result in likely significant effects to the Ballymacoda Bay European Sites. As such a wastewater impact pathway between the project site and the Ballymacoda Bay European Sites is ruled out.

6.1 IN-COMBINATION EFFECTS

The potential exists for the project to overlap with other land use plans applicable to the lands occurring at and in the vicinity of the project site as well as other projects within the vicinity of the project site.

The potential for cumulative impacts could arise where, for example, the construction phase of the project overlaps with the construction phase of other project sites within the un-named stream or the Tawnies Lower Stream catchments, the potential for cumulative impacts to the water quality of these watercourse and conveyance downstream to the Ballymacoda Bay European Sites will exist. Construction projects within this catchment will have the potential to generate contaminated surface water runoff and any discharge of such runoff from the footprint of the project's construction site and other such sites within the sub-catchments could result in negative impacts to water quality downstream at Ballymacoda Bay.

7.0 SCREENING CONCLUSION

The proposed project has been screened for its potential to result in likely significant effects to surrounding European Sites. As this project site is located approximately 6.7km from the nearest European Site, a Source-Pathway-Receiver model was used to identify potential impact pathways linking the project site to European Sites. The potential impact pathways identified were restricted to surface water and groundwater pathways.

Two European Sites, the Ballymacoda Bay SAC and the Ballymacoda Bay SPA were identified as occurring within the zone of influence of the project. The reason for identifying this European Site within the zone of influence of the project was due to the presence of a potential groundwater pathway linking the project site to them.

In the absence of further detailed examinations and appropriate safeguards, the project has been identified as having the potential to result in the discharge of contaminated surface drainage waters to receiving surface water. It has been found during this Screening, which has been completed with a high degree of conservatism and precaution, that the potential for the release of contaminated surface drainage waters during either the construction phase and/or operation phase to result in significant negative effects to the conservation objectives of the Ballymacoda Bay European Sites cannot be ruled out at the screening stage.

For the reasons outlined above it is the considered view of the authors of this Screening Report for Appropriate Assessment that the potential for likely significant effects to European Sites cannot be ruled out at the Screening stage and that an Appropriate Assessment of the project is required. Based on this conclusion a NIS will be prepared to inform the competent authority during its Appropriate Assessment of the project and its potential to result in adverse effects to the integrity of the Ballymacoda Bay European Sites, alone or in-combination with other plans or projects.

8.0 REFERENCES

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European Commission (2021). *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Luxembourg.

European Commission (1992). EU Habitats Directive.

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APPENDIX 1: EUROPEAN SITE QUALIFYING FEATURES OF INTEREST

Table A1.1: List of qualifying features of interest of European Site occurring in the wider surrounding area

European Sites	qualifying features of interest
Ballymacoda Bay SPA	Wigeon (Anas penelope) [A050]
	Teal (Anas crecca) [A052]
	Ringed Plover (Charadrius hiaticula) [A137]
	Golden Plover (Pluvialis apricaria) [A140]
	Grey Plover (Pluvialis squatarola) [A141]
	Lapwing (Vanellus vanellus) [A142]
	Sanderling (Calidris alba) [A144]
	Dunlin (Calidris alpina) [A149]
	Black-tailed Godwit (Limosa limosa) [A156]
	Bar-tailed Godwit (Limosa lapponica) [A157]
	Curlew (Numenius arquata) [A160]
	Redshank (Tringa totanus) [A162]
	Turnstone (Arenaria interpres) [A169]
	Black-headed Gull (Chroicocephalus ridibundus) [A179]
	Common Gull (Larus canus) [A182]
	Lesser Black-backed Gull (Larus fuscus) [A183]
	Wetland and Waterbirds [A999
Ballycotton Bay SPA	Teal (Anas crecca) [A052]
	Ringed Plover (Charadrius hiaticula) [A137]
	Golden Plover (Pluvialis apricaria) [A140]
	Grey Plover (Pluvialis squatarola) [A141]
	Lapwing (Vanellus vanellus) [A142]
	Black-tailed Godwit (Limosa limosa) [A156]
	Bar-tailed Godwit (Limosa lapponica) [A157]
	Curlew (Numenius arquata) [A160]
	Turnstone (Arenaria interpres) [A169]
	Common Gull (Larus canus) [A182]
	Lesser Black-backed Gull (Larus fuscus) [A183]
	Wetland and Waterbirds [A999]
Blackwater Estuary SPA	Wigeon (Anas penelope) [A050]
	Golden Plover (Pluvialis apricaria) [A140]
	Lapwing (Vanellus vanellus) [A142]

European Sites	**qualifying features of interest**
	Dunlin (Calidris alpina) [A149]
	Black-tailed Godwit (Limosa limosa) [A156]
	Bar-tailed Godwit (Limosa lapponica) [A157]
	Curlew (Numenius arquata) [A160]
	Redshank (Tringa totanus) [A162]
	Wetland and Waterbirds [A999]
Cork Harbour SPA	Little Grebe (Tachybaptus ruficollis) [A004]
	Great Crested Grebe (Podiceps cristatus) [A005]
	Cormorant (Phalacrocorax carbo) [A017]
	Grey Heron (Ardea cinerea) [A028]
	Shelduck (Tadorna tadorna) [A048]
	Wigeon (Anas penelope) [A050]
	Teal (Anas crecca) [A052]
	Pintail (Anas acuta) [A054]
	Shoveler (Anas clypeata) [A056]
	Red-breasted Merganser (Mergus serrator) [A069]
	Oystercatcher (Haematopus ostralegus) [A130]
	Golden Plover (Pluvialis apricaria) [A140]
	Grey Plover (Pluvialis squatarola) [A141]
	Lapwing (Vanellus vanellus) [A142]
	Dunlin (Calidris alpina) [A149]
	Black-tailed Godwit (Limosa limosa) [A156]
	Bar-tailed Godwit (Limosa lapponica) [A157]
	Curlew (Numenius arquata) [A160]
	Redshank (Tringa totanus) [A162]
	Black-headed Gull (Chroicocephalus ridibundus) [A179]
	Common Gull (Larus canus) [A182]
	Lesser Black-backed Gull (Larus fuscus) [A183]
	Common Tern (Sterna hirundo) [A193]
	Wetland and Waterbirds [A999]
Ballymacoda (Clonpriest and Pillmore) SAC	Estuaries [1130]
	Mudflats and sandflats not covered by seawater at low tide [1140]
	Salicornia and other annuals colonising mud and sand [1310]
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
	Mediterranean salt meadows (Juncetalia maritimi) [1410]

European Sites	**qualifying features of interest**
Great Island Channel SAC	Mudflats and sandflats not covered by seawater at low tide [1140]
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
Blackwater River (Cork/Waterford) SAC	Estuaries [1130]
	Mudflats and sandflats not covered by seawater at low tide [1140]
	Perennial vegetation of stony banks [1220]
	Salicornia and other annuals colonising mud and sand [1310]
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
	Mediterranean salt meadows (Juncetalia maritimi) [1410]
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
	Austropotamobius pallipes (White-clawed Crayfish) [1092]
	Petromyzon marinus (Sea Lamprey) [1095]
	Lampetra planeri (Brook Lamprey) [1096]
	Lampetra fluviatilis (River Lamprey) [1099]
	Alosa fallax fallax (Twaite Shad) [1103]
	Salmo salar (Salmon) [1106]
	Lutra lutra (Otter) [1355]
	Trichomanes speciosum (Killarney Fern) [1421]