

Ballymastone Phase 3 LRD

Natura Impact Statement

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**Brady Shipman
Martin**

**Built.
Environment.**

Environmental Assessment **Built Environment**

23-OCT-25 LRD0053/S3
FINGAL CO.CO. PLDEPT

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1 Introduction

1.1 Background

Glenveagh Living Limited (the Applicant) is seeking permission from Fingal County Council for a residential scheme (Phase 3) at Ballymastone, Donabate, Co. Dublin ('the proposed development' hereafter).

This document comprises an Appropriate Assessment Screening Report (AASR) and Natura Impact Statement (NIS), prepared in order to support the Appropriate Assessment for the proposed development.

The NIS is intended to provide the information required to assist Fingal County Council, the competent authority, to undertake a Screening Assessment and, if necessary, an Appropriate Assessment (AA). This will determine the effects, if any, on European sites, (also known as Natura 2000 Sites) (Special Areas of Conservation (SAC) and Special Protection Areas (SPA), designated for nature conservation). The potential impacts on European sites, both as a result of the proposed development and in-combination with other plans and projects, are appraised in this report.

Brady Shipman Martin (BSM) was appointed by the Applicant to prepare the report, which was written by Ecologist Sadye Goldfarb and technically reviewed by Associate and Senior Ecologist Matthew Hague CEnv MCIEEM of Brady Shipman Martin.

1.2 Expertise and Qualifications

This report has been prepared by Sadye Goldfarb, Ecologist at Brady Shipman Martin. She holds a bachelor's degree in Environmental Science from the University of Vermont and a master's degree in Biodiversity and Conservation from Trinity College Dublin. She is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management and is experienced in drafting and reviewing AA Screening Reports, Natura Impact Statements, EIA Screening Reports and SEA Screening Reports. She is also experienced in undertaking baseline ecological surveys, preparing Ecological Impact Assessments (EclA), and undertaking Biodiversity Net Gain (BNG) assessments.

Matthew Hague BSc MSc Adv. Dip. Plan. & Env. Law CEnv MCIEEM, is a highly experienced and qualified ecologist, with a master's degree in Ecosystem Conservation and Landscape Management. He has over 20 years of experience in ecological and environmental consultancy, across a wide range of sectors. He has prepared numerous reports for AA Screening as well as Natura Impact Statements, for projects of all scales, from small residential developments to nationally important infrastructure projects. Matthew is a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Matthew has also completed an Advanced Diploma in Planning and Environmental Law, at King's Inns and is a member of the Irish Environmental Law Association (IELA).

1.3 Legal requirement for Appropriate Assessment

European sites make up a network of sites designated for nature conservation under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive") and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the "Birds Directive"). The requirements for Appropriate Assessment are set out under Article 6 of the Habitats Directive, transposed into Irish law by the European Union (Birds and

Natural Habitats) Regulations 2011-2015¹ (the “Birds and Natural Habitats Regulations”) and the Planning and Development Act, 2000 - 2021 (the “Planning Acts”).

European sites are also known as ‘Natura 2000 Sites’ (Special Areas of Conservation (SAC) and Special Protection Areas (SPA)). As defined in section 177R of the Planning Acts, “European site” means:

- (a) a candidate site of Community importance,
- (b) a site of Community importance,
- (ba) a candidate special area of conservation,
- (c) a special area of conservation,
- (d) a candidate special protection area and
- (e) a special protection area.

Article 6(3) of the Habitats Directive states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

The first test is to establish whether, in relation to a particular plan or project, Appropriate Assessment is required. Section 177U of the Planning Acts requires that the AA screening test must be applied to the proposed development, as follows:

- To assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project is likely to have a significant effect on the European site;

An Appropriate Assessment is required if it cannot be excluded, on the basis of objective information, that the development, individually or in combination with other plans or projects, will have a significant effect on a European site.

1.3.1 Stages in the Appropriate Assessment Process

European Commission guidance (2021)² sets out the principles on how to undertake decision making in applying the Habitats Directive. The requirements of the Habitats Directive comprise three distinct stages”:

Stage one: screening. The first part of the procedure consists of a pre-assessment stage (‘screening’) to ascertain whether the plan or project is directly connected with, or necessary to, the management of a Natura 2000 site, and, if this is not the case, then whether it is likely to have a significant effect on the site (7) (either alone or in combination with other plans or projects) in view of the site’s conservation objectives. Stage one is governed by the first part of the first sentence of Article 6(3).

Stage two: the appropriate assessment. If likely significant effects cannot be excluded, the next stage of the procedure involves assessing the impact of the plan or project (either alone or in combination with other plans or projects) against the site’s conservation objectives, and ascertaining whether it will affect the integrity of the Natura 2000 site, taking into account any mitigation measures. It will be for the competent authorities to decide whether or not to approve the plan or project in light of the findings

¹ SI No. 477 of 2011

² [Assessment of Plans and Projects in relation to Natura 2000 sites: Methodological Guidance on the Provisions of Article 6\(3\) and \(4\) of the Habitats Directive 92/43/EEC \(European Commission Environment Directorate-General, September 2021\)](#)

of the appropriate assessment. Stage two is governed by the second part of the first sentence and the second sentence of Article 6(3).

Stage three: derogation from Article 6(3) under certain conditions. The third stage of the procedure governed by Article 6(4). It only comes into play if, despite a negative assessment, the developer considers that the plan or project should still be carried out for imperative reasons of overriding public interest. This is only possible if there are no alternative solutions, the imperative reasons of overriding public interest are duly justified, and if suitable compensatory measures are adopted to ensure that the overall coherence of Natura 2000 is protected.

This report has been prepared in accordance with the requirements of the Birds Directive, the Habitats Directive, the Birds and Natural Habitats Regulations and all relevant legislation.

2 Methodology

2.1 Guidelines, Legislation and Policy

This report takes the following **guidance documents** into account:

- Chartered Institute of Ecology and Environmental Management (CIEEM). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, September 2018, updated in September 2019 (V1.1), further updated in April 2022 (V1.2) and September 2024 (V1.3);
- Department of Environment, Heritage and Local Government (DoEHLG) (2010a). Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities;
- DoEHLG (2010b). Circular NPW 1/10 & PSSP 2/10: Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities;
- European Commission (2021). Assessment of plans and projects in relation to Natura 2000 sites- Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- European Commission (2019). Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC;
- Directorate – General for Environment (European Commission), (2021). Guidance document on the strict protection of animal species of Community Interest under the Habitats Directive;
- National Roads Authority (NRA)³ (2009). Guidelines for Assessment of Ecological Impacts of National Road Schemes;
- Office of the Planning Regulator (OPR) (2021). Practice Note PN01 Appropriate Assessment Screening for Development Management.

The proposed development complies with the following **legislative instruments**:

- The Planning and Development Act 2000 as amended (the “Planning Acts”);
- The Wildlife Act 1976 to 2021 and the Wildlife (Amendment) Act 2000;
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”);
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the “Birds Directive”);
- European Communities (Birds and Natural Habitats) Regulations as amended;
- Flora (Protection) Order 2022;
- Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment;

³ Now Transport Infrastructure Ireland (TII).

- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

Information was collated from the organisations and websites listed below:

- Data on European sites and rare and protected plant and animal species contained in the following databases:
 - The National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage (www.NPWS.ie);
 - The National Biodiversity Data Centre (NDBC) (www.biodiversityireland.ie);
 - BirdWatch Ireland (www.birdwatchireland.ie);
 - Bat Conservation Ireland (www.batconservationireland.org).
- Information on land-use zoning from the online mapping of the Department of Housing, Planning and Local Government (<http://www.myplan.ie/en/index.html>);
- Recent and historical OSi mapping and aerial photography, including www.geohive.ie;
- Photographs taken at the site;
- Information on local watercourses from www.catchments.ie;
- Information on water quality in the area (www.epa.ie);
- Information on soils, geology and hydrogeology in the area (www.gsi.ie);
- The NPWS Article 17 Reports: -
 - The Status of EU Protected Habitats and Species in Ireland – Volume 1 (NPWS, 2019a);
 - The Status of EU Protected Habitats and Species in Ireland – Volume 2 (Habitat Assessments) (NPWS, 2019b);
 - The Status of EU Protected Habitats and Species in Ireland – Volume 3 (Species Assessments) (NPWS, 2019c);
- Ireland's 4th National Biodiversity Plan 2023 – 2030 (Department of Housing, Local Government and Heritage);
- Fingal County Development Plan 2023-2029, including the associated Natura Impact Report.

This report takes full account of the design of the proposed development, and a detailed examination of all relevant elements of the proposal as it currently stands, was undertaken.

Given the amount of information available, including from the developer, NPWS and other sources, it has been possible to gather adequate information on the site and the adjacent area (in particular, the European sites), in order to make an informed, sound judgement as to the potential impacts of the proposed development on the QIs and SCIs of European sites.

2.2 Baseline Data Collection and Field Visits

A significant amount of field-based research has been undertaken by the authors as well as other qualified and experienced ecologists at the site, over several years – since the site was first visited by ecologists from Brady Shipman Martin in December 2020, prior to the submission of the planning application for Phase 1, now under construction.

Site walkover surveys have been undertaken at the site by the authors and other specialist ecologists on numerous occasions between 2020 and 2024, both in the preparation of the current planning application and as part of the previous, permitted development to the immediate south and south-east of the site (Ballymastone Phase 1, permitted under FCC Ref. LRD0008/S3 & ABP4 Ref. 315288 and Ballymastone Phase 2, permitted under LRD0039/S3 & ABP Ref. 320885).

⁴ An Bord Pleanála, now An Coimisiún Pleanála

The baseline surveys covered the following elements and where relevant the results are included in this document:

- Habitat and botanical surveys and mapping
- Rare plant surveys and surveys for invasive alien plants
- Large mammal surveys
- Bat activity and roosting surveys
- Bird surveys
- Appraisal of site suitability for lepidoptera, amphibians and reptiles

During the course of the site visits, the habitats were identified, described and mapped. Habitats were surveyed using the *Best Practice Guidance for Habitat Survey and Mapping*⁵ and were classified using *A Guide to Habitats in Ireland*⁶ with due regard to the *Interpretation Manual of European Habitats*⁷. Vascular plant nomenclature follows that of the *New Flora of the British Isles 4th Edition*⁸.

The surveys were all carried out by specialist ecologists, as follows (dates refer to surveys carried out in preparation of the current application):

- Bat and large mammal ecologist Brian Keeley (Wildlife Surveys Ireland): 14/15 July 2025. The Bat Survey is included at Appendix 8.1 of the EIAR.
- Ornithologist John Fox: three visits between 1 and 20 of August and 5 of September 2025. The Bird Survey Report is included at Appendix 8.2 of the EIAR;
- In addition to the ecological surveys undertaken, specialist tree surveys have been undertaken by arborist John Morris (John Morris Arboricultural Consultancy) on several occasions in the preparation of this planning application. The tree survey documentation including Arboricultural Report is submitted separately.

A final site survey was undertaken by the authors on 17th September 2025.

In addition to the biodiversity surveys and research, this report has full regard to the relevant chapters of the EIAR, including the Land, Soils, Geology and Hydrogeology chapter and the Hydrology chapter as well as the Water Framework Directive Screening Assessment (appendix 10.2 to the EIAR) and the Hydrological & Hydrogeological Risk Assessment (**Appendix IV** to this NIS). These reports were prepared by AWN Consulting Ltd.

⁵ Smith, G. F., O'Donoghue, P., O'Hara, K., and Delaney, E. (2010) "*Best Practice Guidance for Habitat Survey and Mapping*". Available at: https://www.heritagecouncil.ie/content/files/best_practice_guidance_habitat_survey_mapping_onscreen_version_2011_8mb.pdf [accessed June 2025]

⁶ Fossitt, J. (2000) "*A Guide to Habitats in Ireland*". Heritage Council. Available at: <https://www.npws.ie/sites/default/files/publications/pdf/A%20Guide%20to%20Habitats%20in%20Ireland%20-%20Fossitt.pdf> [accessed June 2025]

⁷ European Commission (2007) "*Interpretation Manual of European Union Habitats*". Available at: https://www.miteco.gob.es/content/dam/mites/es/biodiversidad/temas/espacios-prottegidos/doc_manual_intp_habitat_ue_tcm30-207191.pdf [accessed June 2025]

⁸ Stace, C. (2019) "*New Flora of the British Isles, 4th Edition*". Cambridge University Press.

3 Description of the Proposed Development and the Study Area

3.1 Site Location

The site of the proposed development at Ballymastone Phase 3 is located in the coastal town of Donabate, c. 20km north-east of Dublin City, in the administrative area of Fingal County Council. The site is situated in the townlands of Ballisk Common, Ballisk, Ballalease North, Ballymastone and Ballalease West. The site comprises the remainder of a large greenfield site on the eastern margin of the town. It consists of two disused agricultural fields and a large construction compound/construction storage area – permitted as part of the Phase 2 development, criss-crossed by hedgerows and drainage ditches. It is bounded by Priory Wood (a residential area) and Donabate Burial Ground to the north. To the northeast of the site is greenfield land, which forms part of the St. Ita's Architectural Conservation Area (ACA) under the Fingal Development Plan 2023-2029. The eastern boundary of the site is bordered by the Donabate Distributor Road (DDR), and to the west is The Links (a residential area). Ballymastone Phases 1 and 2 (currently under construction) are located directly south of the Phase 3 site.

The general topography of the site is flat, and the surrounding area comprises new suburban development comprising a mix of uses from residential, to education and commercial. Rogerstown Estuary is c. 850m north of the site.

The site of the proposed development is within the 'Nanny-Delvin' (08) catchment, the 'Ballough[Stream]_SC_010' sub-catchment, and the TURVEY_010 sub basin. There are no mapped water features on the site; however, it is located approximately midway between both Rogerstown Estuary (to the north) and Malahide Estuary (to the south). The Beaverstown stream (EPA name: 'Rahillion', WFD name: 'Ballyboghil_010', EPA code: 08R23) flows approximately 700m to the north-west of the site, and the Portrane stream (Portrane Canal) (EPA name: 'Ballalease North', WFD name: 'Ballyboghil_010', EPA code: 08B45) flows approximately 450m to the north-east. Both of these streams discharge into Rogerstown Estuary, which is approximately 850m north of the proposed development site.

As discussed in the Infrastructure Design Report prepared by DBFL Consulting Engineers and submitted under separate cover as part of this application (and shown in Figure 6 (Masterplan Surface Water Catchment plan) of the Infrastructure Design Report), the site is drained by a network of drainage ditches which traverse the site and feed into the Beaverstown stream catchment and Portrane Canal catchments. The overall Ballymastone masterplan area was divided into five catchments to best utilise available surface water discharge points. The Ballymastone Phase 3 lands are located within parts of catchments 4 and 5. Catchment 4 discharges to the existing 1350mm surface water culvert to the northwest of the site. This in turn discharges to Rogerstown Estuary to the north. Catchment 5 discharges to the existing ditches which eventually flow to the Portrane Canal and then onto the Rogerstown Estuary to the north.

In summary, surface water arising within the Ballymastone Phase 3 area discharges to Rogerstown Estuary via the Beaverstown stream and Portrane Canal catchments.

Refer to **Figure 3.1**, below.

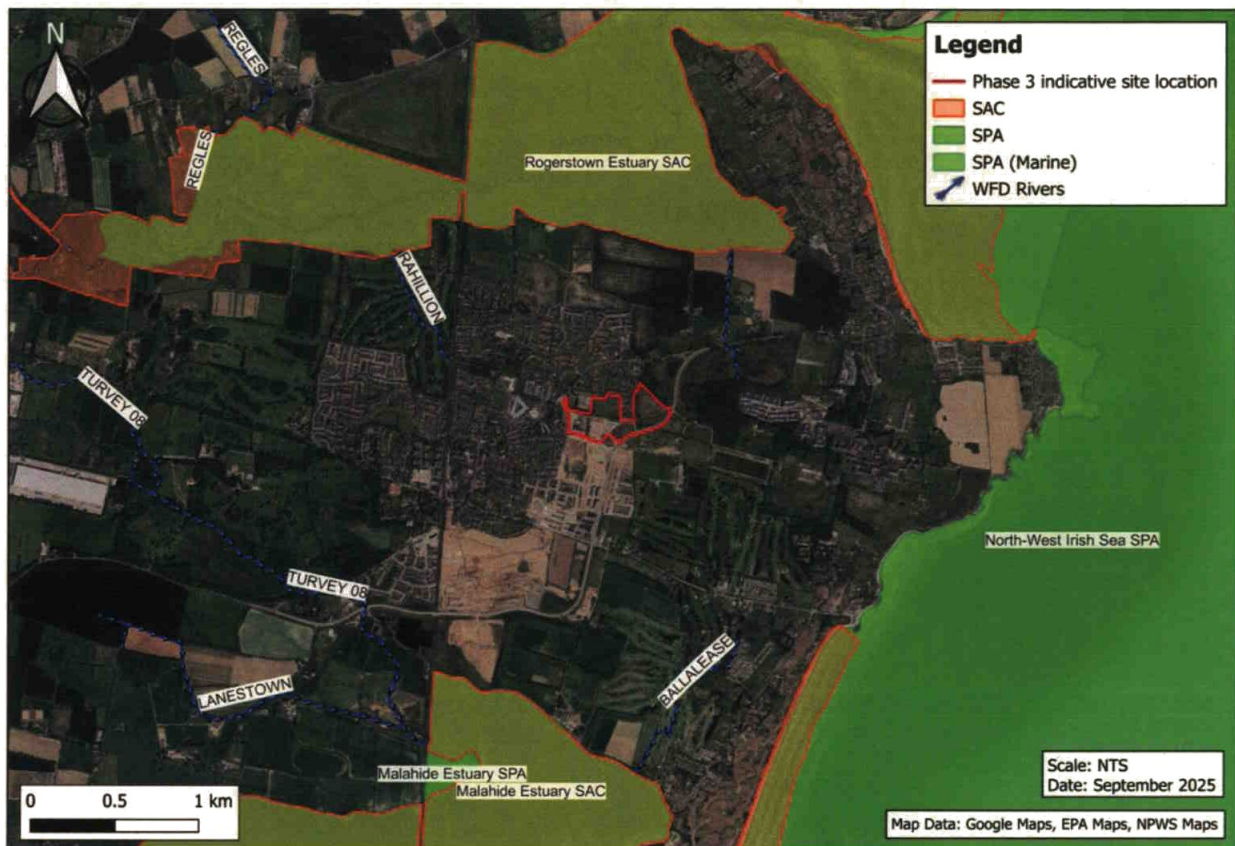


Figure 3.1 - Location of the proposed development, with European sites and EPA-mapped watercourses shown.

3.2 Development Description

The proposed development will consist of the construction of a residential development, which represents Phase 3 of the wider development of the Ballymastone Lands, ranging in height from 2- to 6-storeys, to accommodate 398 no. residential dwellings (including a mix of apartments, duplexes and houses), private amenity space, a crèche (c. 646sq.m), and a community space (c. 100sq.m). The site will accommodate 316 no. car parking spaces in total (comprised of 288 no. residential spaces, 10 no. spaces for the proposed crèche/community space, 6 no. EV charging spaces including accessible spaces, and 12 no. spaces ducted for future provision), 1,619 total no. bicycle parking spaces, new pedestrian/cycle links, road improvements, storage, services (including water, wastewater, electricity and telecommunications) and plant areas. Landscaping will include communal amenity areas, SuDS features, and significant public open space (c. 15.3% of the net site) including outdoor exercise and play equipment.

3.2.1 Water Infrastructure

3.2.1.1 Water Supply

As set out in detail in the Infrastructure Design Report (IDR) for the proposed development, prepared by DBFL Consulting Engineers and submitted separately, there is an existing 225mm diameter watermain constructed throughout Phase 1 of the site which is supplied by a 400mm diameter watermain within the DDR and a 225mm in the Links. This will be utilised to serve the Phase 3 development.

The proposed watermain design and layout is in accordance with the Irish Water Code of Practice for Water Infrastructure and The Irish Water, Water Infrastructure Standard Details. A Confirmation of Feasibility has

also been provided by Irish Water which outlines that there are no objections to the watermain design. A copy of the SODA is included in Appendix F of the IDR.

3.2.1.2 Surface Water Drainage

The existing site is predominantly greenfield (albeit much of it is occupied by the construction compound associated with the permitted Phase 2 development) excluding the existing DDR, and the topography of the site is generally flat with a high point in the middle of the site adjacent to the DDR with a slight fall from the South to the North. Currently, the site is drained by a network of drainage ditches which traverses the site and feed into the Beaverstown stream catchment and Portrane Canal catchment. Surface water runoff from the existing DDR is collected via road gullies into existing carrier drains running along the road and transferred into 5 attenuation ponds along the length of the DDR.

As confirmed in DBFL's Infrastructure Design Report, the surface water drainage strategy for the Phase 3 site is in line with the overall surface water drainage strategy for the Ballymastone masterplan lands which was also developed by DBFL. Surface water runoff from the development will be attenuated to greenfield runoff rates (Q_{bar}) in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS).

The attenuation systems are designed to accommodate the 100-year critical storm event. Attenuation storage is provided through a combination of above ground and underground attenuation systems. A balance of underground and overground storage is required considering the urban nature of the development and density / open space requirements. SUDS features such as green roofs and the inclusions of permeable paving, tree pits and swales will provide a surface water treatment train and promote source control throughout the development while also providing attenuation storage at source. In some locations, the proposed layout has also managed to include over edge road drainage with surface water flowing directly under drained swales providing treatment and storage at source.

The proposed Phase 3 development site (this current application) crosses 2 surface water catchments included within the overall masterplan area. Refer to **Figure 3.2**, below.

The overall masterplan area was divided into 5 catchments to best utilise the available surface water discharge points. Parts of catchment 4 and 5 are within the Phase 3 site boundary.

Catchment 4 is separated into sub catchments with attenuation provided closer to source within the sub-catchments. Catchment 4 discharges to the existing 1350mm surface water culvert to the northwest of the site which eventually discharges to the Rogerstown Estuary to the north. Utilising the 1350mm surface water culvert for the Ballymastone masterplan area is in line with the Donabate LAP.

Catchment 5 discharges to the existing ditches which eventually flow to the Portrane Canal and then onto the Rogerstown Estuary to the north.

The Infrastructure Design Report states that *a lot of the drainage infrastructure required for Phase 3 was constructed as part of Phase 1 of the works permitted under FCC Reg. Ref. LRD0008/S3, specifically the connection to the 1350mm culvert and the majority of the attenuation associated with Catchment 4.*

The Infrastructure Design Report also states that *a lot of the drainage infrastructure required for Catchment 5 will be constructed as part of Phase 2 of the works permitted under FCC Reg. Ref. LRD0039/S3, specifically the final outfall to an existing ditch to the North West and the majority of the attenuation associated with Catchment 5.*

In summary this means that no new surface water infrastructure outfalls are required as part of the Phase 3 development – they are already provided for under the permitted Phase 1 and 2 projects.

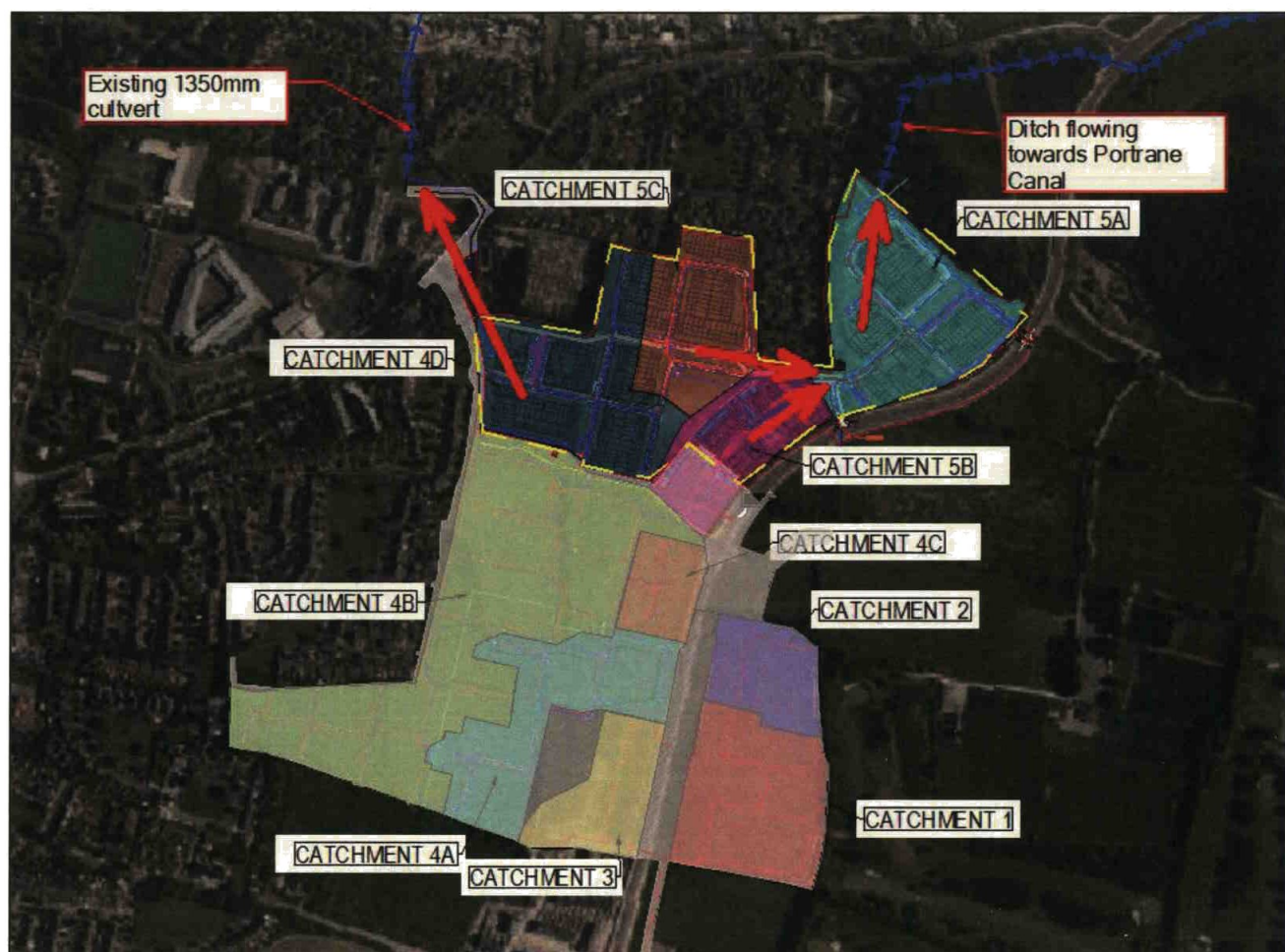


Figure 3.2 – Masterplan surface water catchment plan

Taking account of the permitted Phases 1 and 2, surface water management for the proposed Phase 3 development is designed to comply with the Greater Dublin Strategic Drainage Study (GSDSDS) policies and guidelines and the requirements of Fingal County Council. The guidelines require the following four main criteria to be provided by the development's surface water design:

- **Criterion 1:** River Water Quality Protection – satisfied by providing interception storage using permeable paving in car parking spaces and swales alongside roads, treatment of run-off within the SUDS features e.g., permeable paving for parking bays and within the attenuation storage system and oil separators on the main surface water outfalls from the development.
- **Criterion 2:** River Regime Protection – satisfied by attenuating run-off with flow control devices prior to discharge to the outfall.
- **Criterion 3:** Level of Service (flooding) for the site – satisfied by the Site being outside the 1000 year coastal and fluvial flood zones, (See Flood Risk Assessment). Fluvial flood risk addressed by development designed to accommodate a 100-year storm as per GSDSDS. Planned flood routing for storms greater than 100-year level, considered in design, the development has been designed to provide an overland flood route from the development towards the surface water outfall.
- **Criterion 4:** River flood protection – attenuation and long-term storage provided within the SUDS features e.g., green roofs, permeable paving construction and attenuation facilities.

Full details of the surface water design, including connections to the existing and permitted infrastructure, are all included in the accompanying Infrastructure Design Report, and the following sustainable drainage systems are proposed:

- **Permeable Paving** on driveways within the proposed development. All roofs within Phase 3 of the development will drain to permeable paving.
- **Green roofs** will be an extensive type of green roof with 80mm minimum construction depth. Impermeable roof areas will be sloped towards green roofs where possible to infiltrate water runoff through the green roof build up. Green roofs will be utilised on top of all the apartment blocks within the development; Fingal County Council require a minimum of 60% of apartment roofs to drain via green roofs. It is proposed that 100% of the roof area will drain to the green areas of the roofs.
- **Rain Gardens** will provide source control for rainfall, with plants which are suitable for both dry and damp periods selected to create a self-sustaining, low maintenance growing space.
- **Swales with filter drains** will generally be dry overland flow routes with slide slopes of 1:4 which, during extreme rainfall events could potentially fill to a depth of 200mm, with water receding quickly as the storm abates.
- **Tree Pits** are low maintenance features that will enable both water treatment and groundwater recharge. These systems are also low maintenance.

3.2.1.3 Foul Water Drainage

As confirmed in DBFL's Infrastructure Design Report, the subject site has no existing foul loading as it is mainly greenfield. According to records, there is an existing 300mm foul sewer running through the constructed Donabate Distributor Road.

The proposed foul drainage system for Phase 3 will have two different connection points to the existing foul drainage network (see the DBFL IDR for more details).

A foul pump station, located in the northern part of the subject site has already been permitted as part of the Phase 2 project. This new pump station will serve the majority of the proposed Phase 3 development.

There is also a new Uisce Éireann foul pump station that was recently constructed to the south of the subject site. This will serve the southern side of the proposed Phase 3 development

A Confirmation of Feasibility (COF) and Statement of Design Acceptance (SODA) have been received from Uisce Éireann, confirming that a Wastewater connection can be facilitated and that the design is in accordance with Uisce Éireann Standards. A Connection offer has also been received as part of the construction of Phase 2 which states the acceptance from Irish Water of the pump station design and location.

Foul sewers have been designed in accordance with the Building Regulations and specifically in accordance with the principles and methods set out in the Irish Water Code of Practice, IS EN752 (2008), IS EN12056: Part 2 (2000) and the recommendations of the 'Greater Dublin Strategic Drainage Study,' (GDSDS).

3.2.1.4 Site Specific Flood Risk Assessment

A Site-Specific Flood Risk Assessment (SSFRA) has been prepared by DBFL Consulting Engineers (October 2025) for the proposed development. The following text is taken from Section 6 (Conclusions) of the DBFL report:

The Site-Specific Flood Risk Assessment for the proposed Phase 2 development at Ballymastone, Donabate was undertaken in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities", November 2009.

Following the flood risk assessment stages, it was determined that the Site is within Flood Zone C as defined by the Guidelines.

It is concluded that the;

- Residential development proposed is appropriate for the Site's flood zone category.
- Planning System and Flood Risk Management Guidelines Sequential Approach is met and the 'Avoid' principal achieved.

The development was concluded as having a good level of flood protection up to the 100-year return event. For pluvial floods exceeding the 100-year capacity of the drainage system then proposed flood routing mitigation measures are recommended.

3.3 Construction Methodology

A Preliminary Construction & Environmental Management Plan (CEMP) has been prepared by DBFL Consulting Engineers (October 2025) for the proposed development site.

The lead contractor will expand upon the CEMP to produce a detailed CEMP on appointment. The CEMP is a live document, and the contractor will ensure that it remains up to date for the duration of the construction period. The CEMP may need to be altered during the lifecycle of the construction period to take account of monitoring results, legislative changes, outcomes of third-party consultations etc. It is a comprehensive document that contains all mitigation measures relevant to this NIS.

3.4 Study Area and Surrounding Environment

3.4.1 Habitats

The habitat types (and/or mosaics) recorded within the study area are defined according to the Heritage Council classification system (Fossitt, 2000) and are summarised below and depicted in **Figure 3.3**.

3.4.1.1 Drainage ditches (FW4)

Drainage ditches (FW4) are found on the site, mostly running parallel along the base of the hedgerows that run east west through the subject site. In combination with the grassland (GS4 / GS2) that dominates the eastern portion of the site, these habitats show that the site has the ability to retain water. The ditch running east—west below the graveyard and adjacent field contained standing water during the field survey in September 2025. Hairy willowherb (*Epilobium hirsutum*) and common duckweed (*Lemna minor*) were recorded in this habitat, but the ditches are very species-poor otherwise.

3.4.1.2 Hedgerows (WL1) and Treelines (WL2), with associated drainage ditches

There are several hedgerows on the subject site. In general hawthorn (*Crataegus monogyna*) is the dominant shrub interspersed with sycamore (*Acer pseudoplatanus*) trees. Bramble (*Rubus fruticosus* agg.) and ivy (*Hedera helix* agg.) are also abundant in the shrub layer, with lesser quantities of dog rose (*Rosa canina* agg.). The nutrient rich indicator species cleavers (*Galium aparine*) and nettle (*Urtica dioica*) are found in the ground layer, with creeping thistle (*Cirsium arvense*), and spiny sow-thistle (*Sonchus asper*) also recorded in places.

There is a row of mature Monterey cypress (*Cupressus macrocarpa*) along the boundary of Donabate Burial Ground. These trees now overshadow and impact on the native hedgerow vegetation.

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3.4.1.3 (Mixed) broadleaved woodland (WD1)

A long strip of (Mixed) broadleaved woodland (WD1) habitat runs along the site boundary at the north-eastern end of the site (between the Priory Wood development and the subject site). The canopy is dominated by sycamore (*Acer pseudoplatanus*) and ash with lesser amounts of sessile oak (*Quercus petraea*) and elm (*Ulmus* sp.) There are other tree species present in small amounts such as grey willow (*Salix cinerea* subsp. *Oleifolia*), horse-chestnut (*Aesculus hippocastanum*), and spruce (*Picea* sp). Although heavily trampled in places the understorey of the woodland is vegetated by such shrubs as bramble, ivy and blackthorn (*Prunus spinosa*). The herbaceous species occurring here include lesser celandine (*Ficaria verna*), cleavers, herb Robert (*Geranium robertianum*), germander speedwell (*Veronica chamaedrys*) and nettle.

3.4.1.4 Wet grassland / Dry meadow mosaic (GS4 / GS2)

Wet (GS4) and dry grasslands (GS2) dominate the north-eastern end of the site. Wet grassland habitat is characterised by having an increased influx of freshwater near the soil surface relative to GS2/GS1 grassland, which allows this grassland type to support some wetland plant species. As a result, the wetter parts of the habitat mosaic are dominated by such grass species as creeping best grass (*Agrostis stolonifera*), Yorkshire fog (*Holcus lanatus*), and sweet-grass (*Glyceria* sp.) alongside such rush species as soft rush (*Juncus effusus*), jointed rush (*Juncus articulatus*) and hard rush (*Juncus inflexus*). Occasional species in this habitat include bulrush (*Typha latifolia*), creeping buttercup (*Ranunculus repens*), brown sedge (*Carex disticha*) and meadow buttercup (*Ranunculus acris*).

3.4.1.5 Dry meadows and grassy verges (GS2)

There is a dry meadow present onsite, in the field between Donabate Burial Ground and Priory Wood. It has relatively low species diversity, with common grasses, dandelion (*Taraxacum* sp.), daisy (*Bellis* sp.), horsetails (*Equisetum* sp.), and ribwort plantain (*Plantago lanceolata*).

3.4.1.6 Local Importance (Lower Value) Habitats/ habitats of negligible value

Areas of spoil and bare ground (ED2) as well as a larger construction matrix made up of ED2, ED3, BL3, and GS2 were recorded on site during the field surveys in 2025 are present on the site. These areas form the construction compound and storage areas permitted as part of the Phase 2 development. There is also a section of amenity grassland (GA2) located in the north-west corner of the site.

Buildings and artificial surfaces (BL3) habitat consists of the roadway through 'The Links' housing estate that runs along the western site boundary, as well as the R126 (Donabate Distributor Road) on the western boundary of the site.

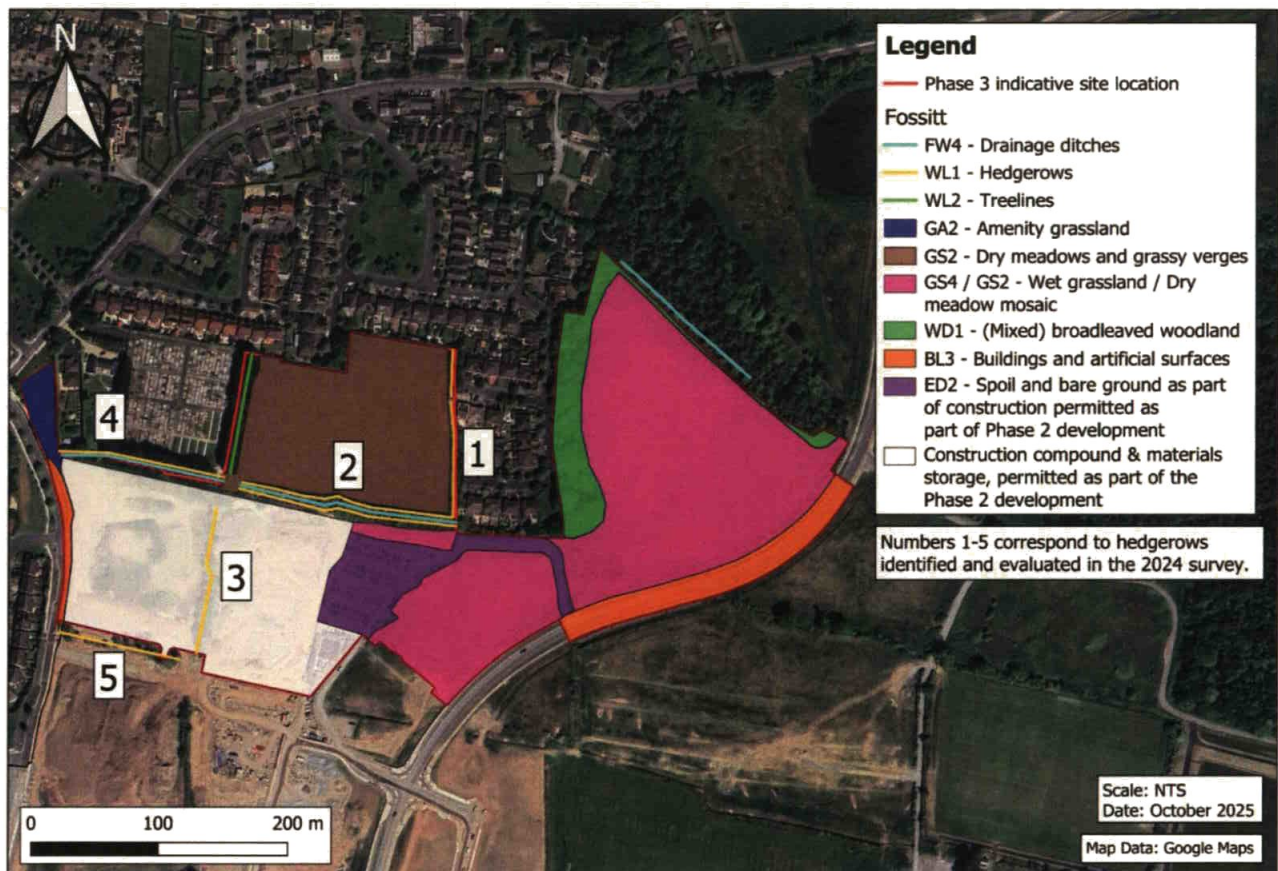


Figure 3.3 - Habitat map for the Ballymastone Phase 3 site

3.4.1.7 Rare and Protected Species, and Invasive Plant Species

The NPWS and The National Biodiversity Data Centre (NBDC) databases were consulted with regard to rare species⁹ and species protected under the Flora Protection Order (2022). According to the NBDC database, there are no known records of rare or protected plant species within the proposed development site or within the 1km grid squares (Grid no. O2350) that covers the site, and none have been recorded during any of the site visits undertaken.

No plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded during the field surveys, including in 2024. Eleven species of non-native/introduced plant species (not listed on the Third Schedule) were recorded across the study area: Persian speedwell (*Veronica persica*), beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*), Monterey cypress (*Cupressus macrocarpa*), spruce (*Picea* sp.), horse chestnut (*Aesculus hippocastanum*), tulip (*Tulipa* sp.), box honeysuckle (*Lonicera nitida*), bristly oxtongue (*Helminthotheca echioides*), cherry laurel (*Prunus lauracerasus*), and *Viburnum* sp.

3.4.2 Fauna

3.4.2.1 Badgers

There is evidence of use of the wider area in Donabate (beyond Ballymastone) by badgers (protected under the Wildlife Act, 1976). Outside the Ballymastone lands, to the east, there are two known setts within the

⁹ Curtis & McGough (1988)

grounds of St. Ita's. These were recorded as active during assessments undertaken in 2019/2020 by Mr Keeley and colleagues as part of a separate development. There are no badger setts within the boundary of the Ballymastone Phase 3 development, and no evidence of badger activity has been recorded on the lands in recent years.

During the preparation of the planning application for Ballymastone Phase 1 two badger setts were recorded in a hedgerow in the centre of the Phase 1 site (to the south of Phase 2) and a third, single-entrance sett was recorded just outside the eastern site boundary of the Phase 1 lands, east of the DDR, near the boundary with the permitted Ballymastone Recreational Hub. The northernmost of the setts within the Phase 1 lands contained four entrances and, while it was not serving as a main sett in 2021 or 2022, it had the potential to function as a main sett. It had initially been the intention to temporarily close the four-entrance sett in the Phase 1 lands for the duration of the construction phase and to reopen it post-construction. Given the level of badger activity at the sett (and the fact that it is not a breeding sett) closure of the sett was not in fact necessary, it has been left open and is currently fenced off (within the tree protection fencing required to protect the retained hedgerows) and protected from the Phase 1 development works.

The setts in the Phase 1 lands were subject to damage, by persons unknown, (including burning and digging) in early 2023 (prior to the commencement of the permitted construction works). Localised damage took place, however despite the high level of disturbance, three badger encounters were noted during a nighttime assessment of the setts; in June 2023.

3.4.2.2 Bats

All Irish bat species are protected under the Wildlife Act (1976) and subsequent amendments, and under Annex IV of the Habitats Directive¹⁰, via the European Communities (Birds and Natural Habitats) Regulations, as amended.

According to the available databases of Bat Conservation Ireland (BCI), there are no records of bats within the study area boundary. However, such a lack of records is no indicator of a lack of activity and during the surveys undertaken in 2025, a total of four bat species were recorded within and around the site (common pipistrelle), soprano pipistrelle, Leisler's bat, and Nathusius' pipistrelle. Activity was concentrated along hedgerows, treelines, and the site periphery, with frequent feeding and commuting by pipistrelles through the evening and into dawn. Static and handheld detectors indicated high soprano activity, regular common pipistrelle passes/feeding, occasional Leisler's, and a single Nathusius' record.

A roost check confirmed one Leisler's bat occupying a Schwegler box on a large oak between fields. This box was installed as part of the mitigation measures implemented during the construction of the Donabate Distributor Road.

The large oak tree in the eastern field bat box was found to contain one roosting Leisler's bat upon inspection.

3.4.2.3 Other large Mammals (other than badgers)

Other than rabbit and fox, recorded occasionally on the wider lands, no evidence of other large mammals has been recorded. While signs of otter (protected under the Wildlife Act (1976) and subsequent amendments, and under Annex II of the Habitats Directive, via the European Communities (Birds and Natural Habitats) Regulations, 2011-2015) and hare were searched for, none were found. Although well-known from the wider area, the presence of otters is considered unlikely given the absence of a watercourse within the site (the drainage ditches are not suitable for otters) and the presence of suitable watercourses and coastal habitats nearby.

¹⁰ With lesser horseshoe bat, not found on the east coast of Ireland, being further protected under Annex II of the Habitats Directive

3.4.2.4 Birds

A total of 26 common bird species of Ireland were recorded on the lands during the surveys undertaken in 2025, none of which were confirmed as breeding (refer to Appendix 8.2 of the EIAR).

Two species of high conservation concern (Red listed) were recorded, both of which were possibly breeding on the lands (meadow pipit and yellowhammer).

Seven species of medium conservation concern, (Amber listed), were recorded (herring gull, barn swallow, house martin, goldcrest, starling, house sparrow and linnet) of which four species were possibly breeding on the lands (goldcrest, starling, house sparrow and linnet).

The remaining 17 species recorded were of least conservation concern, (Green listed) 15 of which were possibly breeding on the lands, with the remaining two species not breeding on the lands. Four of the species recorded were seen in flight or foraging only and most probably were not breeding on the lands. No bird species were confirmed to breed on the lands due mainly to the lateness of the starting date.

The site is probably used by those nonbreeding species for foraging or roosting. No nocturnal species were detected on the lands.

The areas of meadow, scrub, mature trees and hedgerows are the habitats of most importance for the breeding birds present on the site.

The site also supports some wintering species including some already mentioned and others not commonly found in Ireland during the breeding season. These include waterbirds such as Snipe, however, the site at Ballymastone Phase 3 is unsuitable for use by grazing light-bellied Brent geese and other SCI species in Malahide Estuary SPA, Rogerstown Estuary SPA or any other SPAs) and none were found on the lands during surveys undertaken on the lands during the surveys undertaken as part of the planning process for the permitted Phase 1 and 2 developments at Ballymastone.

3.4.2.5 Other fauna

The NBDC database 1km grid square (O2350) has an historic record of European hedgehog (*Erinaceus europaeus*) and common frog (*Rana temporaria*) sightings on the south west corner of the proposed development site, close to the residential development of 'the Links'.

Overall, the Ballymastone lands are dry, with very few areas suitable for use by breeding amphibians (newts and frogs). One common frog was observed during the site visit on 17 September 2025, near Priory Wood. Minor wet areas and temporary ponds onsite are of value for amphibians, in particular during the spring breeding season.

3.4.3 Water

The site of the proposed development is within the 'Nanny-Delvin' (08) catchment, the 'Ballough [Stream]_SC_010' sub-catchment, and the TURVEY_010 sub basin. There are no mapped water features on the site; however, it is located approximately midway between both Rogerstown Estuary (to the north) and Malahide Estuary (to the south). The Beaverstown stream (EPA name: 'Rahillion', WFD name: 'Ballyboghil_010', EPA code: 08R23) flows approximately 700m to the north-west of the site, and the Portrane stream (Portrane Canal) (EPA name: 'Ballalease North', WFD name: 'Ballyboghil_010', EPA code: 08B45) flows approximately 450m to the north-east. Both of these streams discharge into Rogerstown Estuary, which is approximately 850m north of the proposed development site see **Figure 3.4**).

As per the WFD 2016-2021 status, the Beaverstown Stream, Portrane Stream and Rogerstown Estuary are all of 'Poor' status. They are all considered 'At risk' of failing to meet their Water Framework Directive (WFD) objectives by 2027.

The coastal waters of the Northwestern Irish Sea (HA 08) but have a 'Good' WFD Status 2016-2021 and have been identified as 'At risk' of failing to meet their Water Framework Directive (WFD) objectives by 2027.

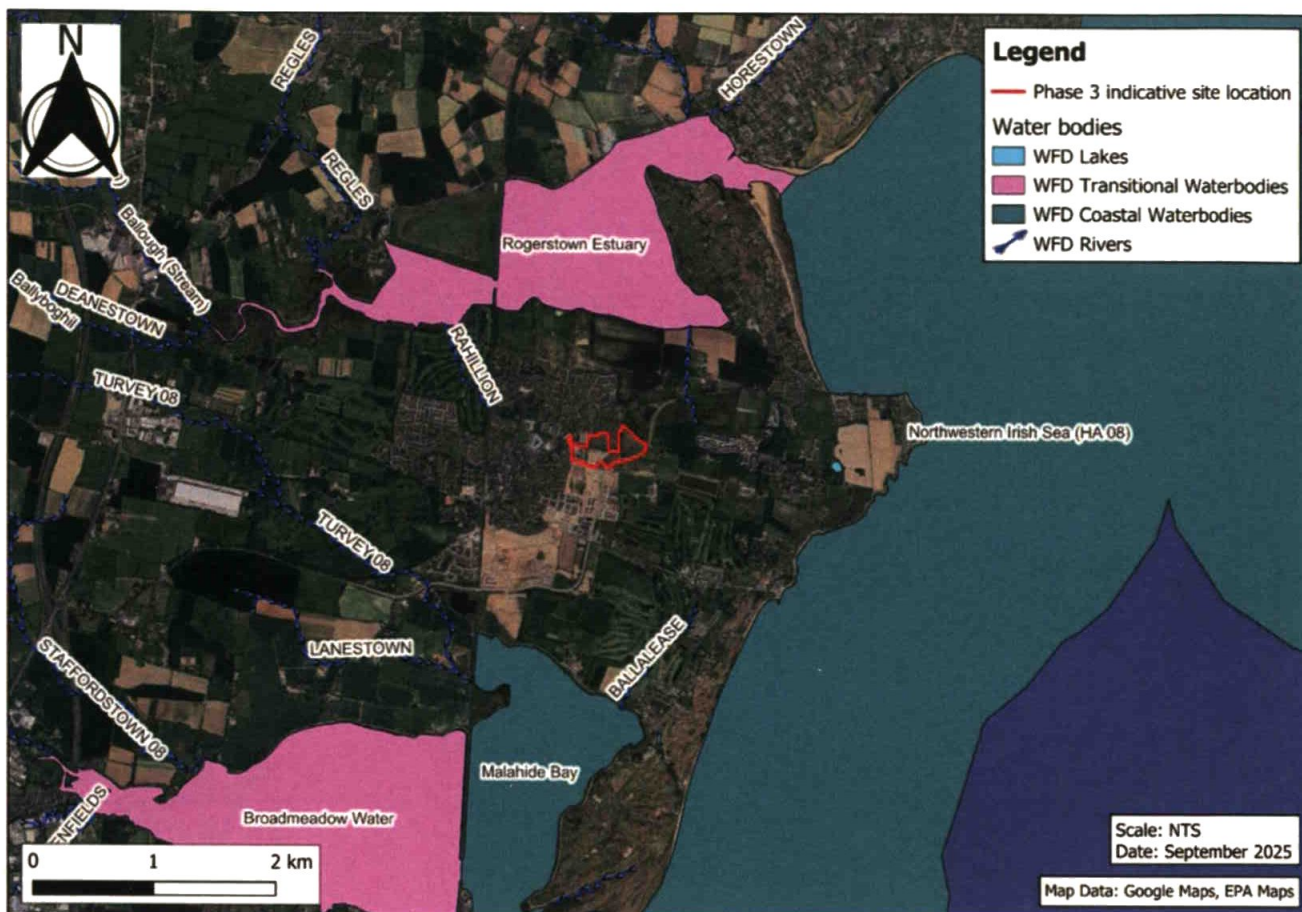


Figure 3.4 - Waterbodies in proximity to the proposed development location.

3.4.4 Overall Evaluation of the Proposed Development Site

The proposed development site is not under any wildlife or conservation designation. Furthermore, no rare, threatened or legally protected plant species, as listed in the *Irish Red Data Book 1 – Vascular Plants* (Curtis & McGough, 1988), the *Flora Protection Order, 2022*, or the *EU Habitats Directive*, are known to occur within the site and none were recorded.

No rare habitats or habitats of particularly high ecological value (i.e. International or National) are present at the site. All of the hedgerows, however, remain of Local (Higher Value) Importance. The hedgerows are of ecological value for their ecological/habitat connectivity and for nesting birds as well as commuting and foraging bats. The mature hedgerows and trees within the site are of greatest importance as they are relatively diverse and act as significant ecological corridors. The site is not of value for wintering birds.

While some of the hedgerows on site represent 'Heritage Hedgerows' and are of high historical importance, all the hedgerows assessed can be considered as hedgerows of 'Unfavourable Condition'.

Overall, the site is of **Local Importance (Higher Value)** in accordance with the ecological resource valuations presented in the NRA Guidelines.

4 Screening for Appropriate Assessment

4.1 Background

The first part of the AA process is the screening phase. Screening identifies the likely effects of the proposed development on European sites that could arise, either alone or in combination with other plans or projects and considers whether these impacts are likely to have a significant effect on the European site in view of the site's conservation objectives.

Screening must be undertaken without the inclusion of mitigation measures.

Following screening therefore, if there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of compliance with Article 6(3) of the Habitats Directive. This means that if the conclusions at the end of the screening exercise are that significant effects on any European sites, as a result of the proposed development, either alone or in combination with other plans and projects, are likely, uncertain or unknown, then an Appropriate Assessment must be carried out. This is in accordance with established precedent and case law.

4.2 Potential Zone of Influence

This assessment is based on the source-pathway-receptor model, which dictates that, for an effect to occur, there must be a 'source' (such as a construction site); a 'receptor' (such as a designated site for nature conservation); and a 'pathway' between the two (such as a watercourse that links the construction site to the designated site). A construction site or completed development may also create a barrier to movement, for example, by preventing the migration of fauna along a river corridor, or by obstructing the migration of birds.

Identification of a potential effect means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the potential effect and the characteristics of the receptor. Although there may be a risk of an impact, it may not necessarily occur, and if it does occur, it may not be significant.

There are no set recommended distances for projects to consider European sites as being relevant for assessment. In 2010, DoEHLG stated that (pp. 31 – 32):

"The approach to screening is likely to differ somewhat for plans and projects, depending on scale and on the likely effects, but the following should be included:

1. Any Natura 2000 sites within or adjacent to the plan or project area
2. Any Natura 2000 sites within the likely zone of impact of the plan or project. A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects
3. Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the cases of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment."

The 2021 OPR guidelines, *Practice Note PN01: Appropriate Assessment Screening for Development Management*, state that the Zone of Influence “should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km)” (p. 8).

Therefore, considering the nature, scale and location of the proposed development and in accordance with the source-pathway-receptor model, the potential Zone of Influence for the proposed development has been defined as follows:

- Any site to which there is a pathway from the proposed development as defined in the following sections.

Screening must be undertaken without the inclusion of mitigation, and it is in this context that this AA Screening Report is prepared.

In addition to the foregoing, OPR’s Practice Note “*Appropriate Assessment Screening for Development Management*”, dated March 2021 – also details a number of key concepts relevant to AA Screening, including “*Best Scientific Knowledge/Information in the Field*” (pg. 5), stating:

“The screening determination must be based on scientific information relevant to the likely effects on the conservation objectives of the relevant European sites. The information should be up-to-date and based on the best available techniques and methods to estimate the presence and extent of effects. This is because if there is any scientific uncertainty as to the absence of significant effects, the project must be screened in for appropriate assessment.”

In the vast majority of cases the information provided by the applicant (including the project description) and publicly available information in relation to the European sites in question and information published by the NPWS, the EPA and others in relation to such sites, should provide a sufficient level of objective scientific information to allow the planning authority to make an informed decision on screening.”

Following screening therefore, if there is a possibility of there being a significant effect on a European site, this will generate the need for an AA under section 177V of the Planning Acts for the purposes of compliance with Article 6(3) of the Habitats Directive. This means that if the conclusions at the end of the screening exercise are that significant effects on any European sites, as a result of the proposed development, either alone or in combination with other plans and projects, are likely, uncertain or unknown, then an AA must be carried out. This is in accordance with established precedent and case law.

According to the Guidance¹¹ published by the European Commission (Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC, 25 January 2019) the “integrity of a site” relates to the site’s conservation objectives. For example, it is possible that a plan or project will adversely affect the site only in a visual sense or only affect habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for the purposes of Article 6(3). If none of the habitat types or species for which the site has been designated is significantly affected, then the site’s integrity cannot be considered to be adversely affected.

In addition, plans or projects or applications for developments which have “no appreciable effect” on the protected site are excluded from the requirement to proceed to appropriate assessment¹² (Opinion of Advocate General Sharpston in Sweetman, para. 48). In other words, if, following Screening, there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of Article 6(3) of the Habitats Directive.

¹¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019XC0125%2807%29>

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62011CC0258>

4.3 Designated Conservation Sites

4.3.1 European Sites

The site of the proposed development is not under any designation for nature conservation. The closest European Sites to the proposed development site are the Rogerstown Estuary SPA and SAC, c. 850m to the north.

The nearest sites are as follows (see also **Figure 4.1**):

■ Special Areas of Conservation (SACs)

- Rogerstown Estuary SAC (site code 000208), c. 850m to the north;
- Malahide Estuary SAC (site code 000205), c. 1.6km to the south;
- Rockabill to Dalkey Island SAC (site code 003000), c. 4.0km to the east;
- Lambay Island SAC (site code 000204), c. 6.4km to the east;
- Baldoyle Bay SAC (site code 000199), c. 7.6km to the south;
- Ireland's Eye SAC (site code 002193), c. 9.9km to the south-east;
- North Dublin Bay SAC (site code 000206), c. 11.1km to the south;
- Howth Head SAC (site code 000202), c. 12.0 km to the south-east;
- South Dublin Bay SAC (site code 000210), c. 16.6km to the south.

■ Special Protection Areas (SPAs)

- Rogerstown Estuary SPA (site code 004015), c. 850m to the north;
- Malahide Estuary SPA (site code 004025), c. 1.6km to the south;
- North-West Irish Sea SPA (site code 004236), c. 1.7km to the east;
- Lambay Island SPA (site code 004069), c. 6.3km to the east;
- Baldoyle Bay SPA (site code 004016), c. 7.7km to the south;
- Skerries Island SPA (site code 004122), c. 9.1km to the north;
- Ireland's Eye SPA (site code 004117), c. 9.5km to the south-east;
- Rockabill SPA (site code 004014), c. 9.6km to the north-east;
- North Bull Island SPA (site code 004006), c. 11.1km to the south;
- Howth Head Coast SPA (site code 004113), c. 12.0km to the south-east;
- South Dublin Bay and River Tolka Estuary SPA (site code 004024), c. 14.5km to the south.

The Conservation Objectives of these sites are to maintain or restore the favourable conservation condition of the QIs / SCIs in question. Where specific conservation objectives have been set out by the NPWS, 'favourable conservation condition' is defined in respect of specific attributes and targets for the habitat or species in question. For further information, refer to **Appendix II** of this NIS.

Ballymastone Phase 3 LRD

Natura Impact Statement

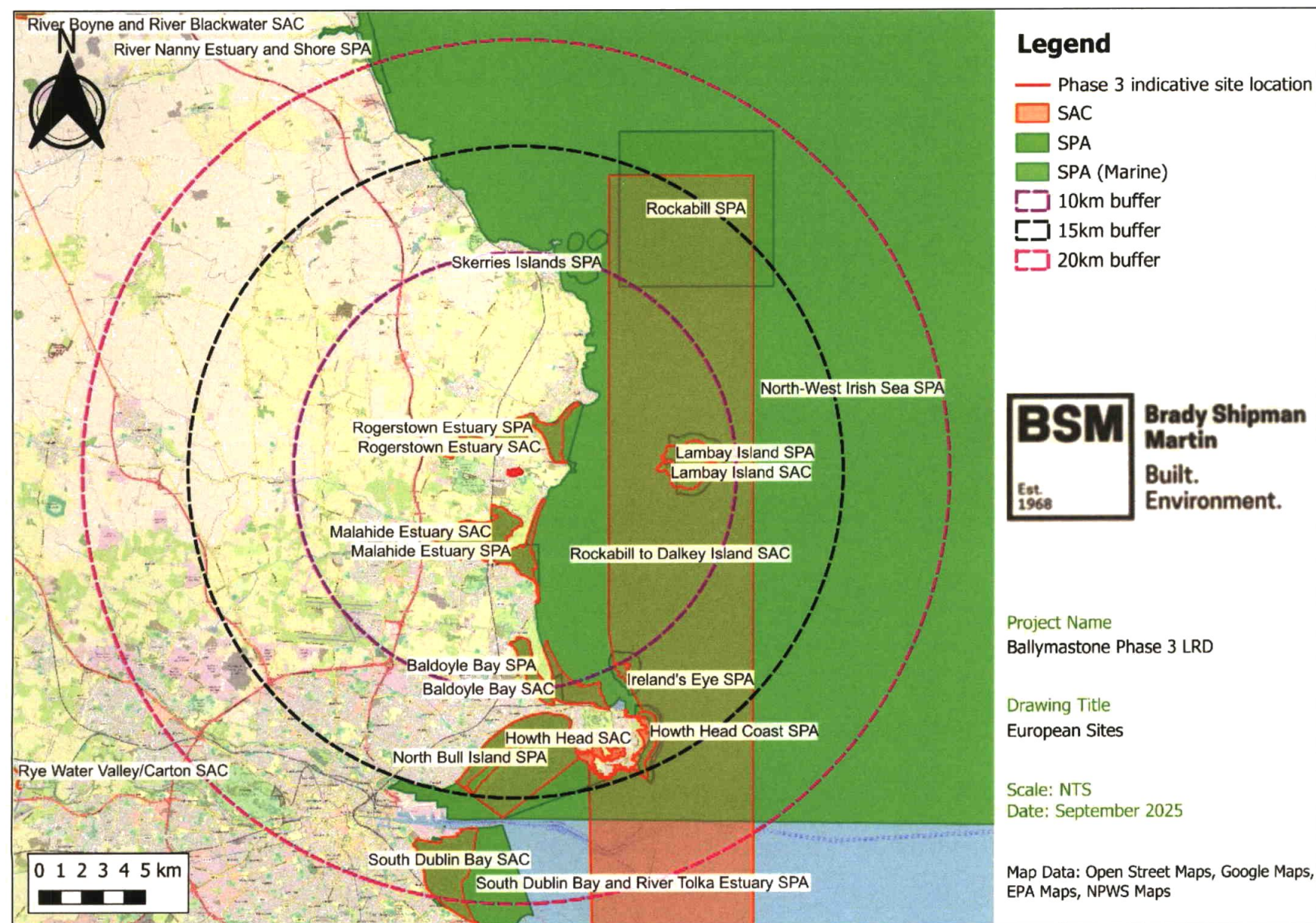


Figure 4.1 - European sites within potential Zone of Influence of the proposed development. 10, 15 and 20km radii are shown for scale.

4.3.2 Other designated areas (other than European sites)

Designated Sites other than European sites (i.e. Proposed Natural Heritage Areas (pNHA) and designated Natural Heritage Areas (NHA)) are included in this assessment in order to address their potential to act as supporting sites for the European sites (see **Figure 4.2**). There is only one fully designated NHA within the zone of influence as listed below:

- Natural Heritage Areas (NHAs)
 - Skerries Island NHA (site code 001218), c. 9.4km north-east;
- Proposed Natural Heritage Areas (pNHAs)
 - Rogerstown Estuary pNHA (site code 000208), c. 850m north;
 - Portrane Shore pNHA (site code 001215), c. 1.5km east;
 - Malahide Estuary pNHA (site code 000205), c. 1.6km south;
 - Lambay Island pNHA (site code 000204), c. 6.3km east;
 - Feltrim Hill pNHA (site code 001208), c. 6.5km south-west;
 - Sluice River Marsh pNHA (site code 001763), c. 7.0km south;
 - Baldoyle Bay pNHA (site code 000199), c. 7.5km south;
 - Loughshinny Coast pNHA (site code 002000), c. 8.1km north-east;
 - Ireland's Eye pNHA (site code 000203), c. 9.8km south-east;
 - Bog of the Ring pNHA (site code 001204), c. 10.4km north-west;
 - Knock Lake pNHA (site code 001203), c. 11.0km north-west;
 - North Dublin Bay pNHA (site code 000206), c. 11.1km south;
 - Santry Demesne pNHA (site code 000178), c. 11.6km south-west;
 - Howth Head pNHA (site code 000202), c. 12.0km south-east;
 - Rockabill Island pNHA (site code 000207), c. 14.3km north-east;
 - Royal Canal pNHA (site code 002103), c. 16.5km south-west;
 - Dolphins, Dublin Docks pNHA (site code 000201), c. 16.7km south;
 - South Dublin Bay pNHA (site code 000210), c. 16.7km south;
 - Grand Canal pNHA (site code 002104), c. 17.3km south-west;
 - Cromwell's Bush Fen pNHA (site code 001576), c. 19.3km north-west.

Note that the above-listed distances are linear (i.e. 'as the crow flies'). Figure 4.2 illustrates all of the NHAs and pNHAs within the potential Zone of Influence (including those which overlap with European sites).

The Rogerstown Nature Reserve and Rogerstown Estuary Ramsar site (Ramsar site 3IE024) is c. 850m to the north of the site and Baldoyle Bay Ramsar site (Ramsar site 3IE004) and Baldoyle Estuary Nature Reserve is c. 7.6km to the south. Malahide shellfish waters (EPA code IEPA2_0057) are c. 3km to the east of the site in the northwestern Irish Sea (HA 08). The Broadmeadow Estuary (Malahide) Ramsar site (Ramsar site 3IE016) is c. 1.5km south.

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Ballymastone Phase 3 LRD

Natura Impact Statement

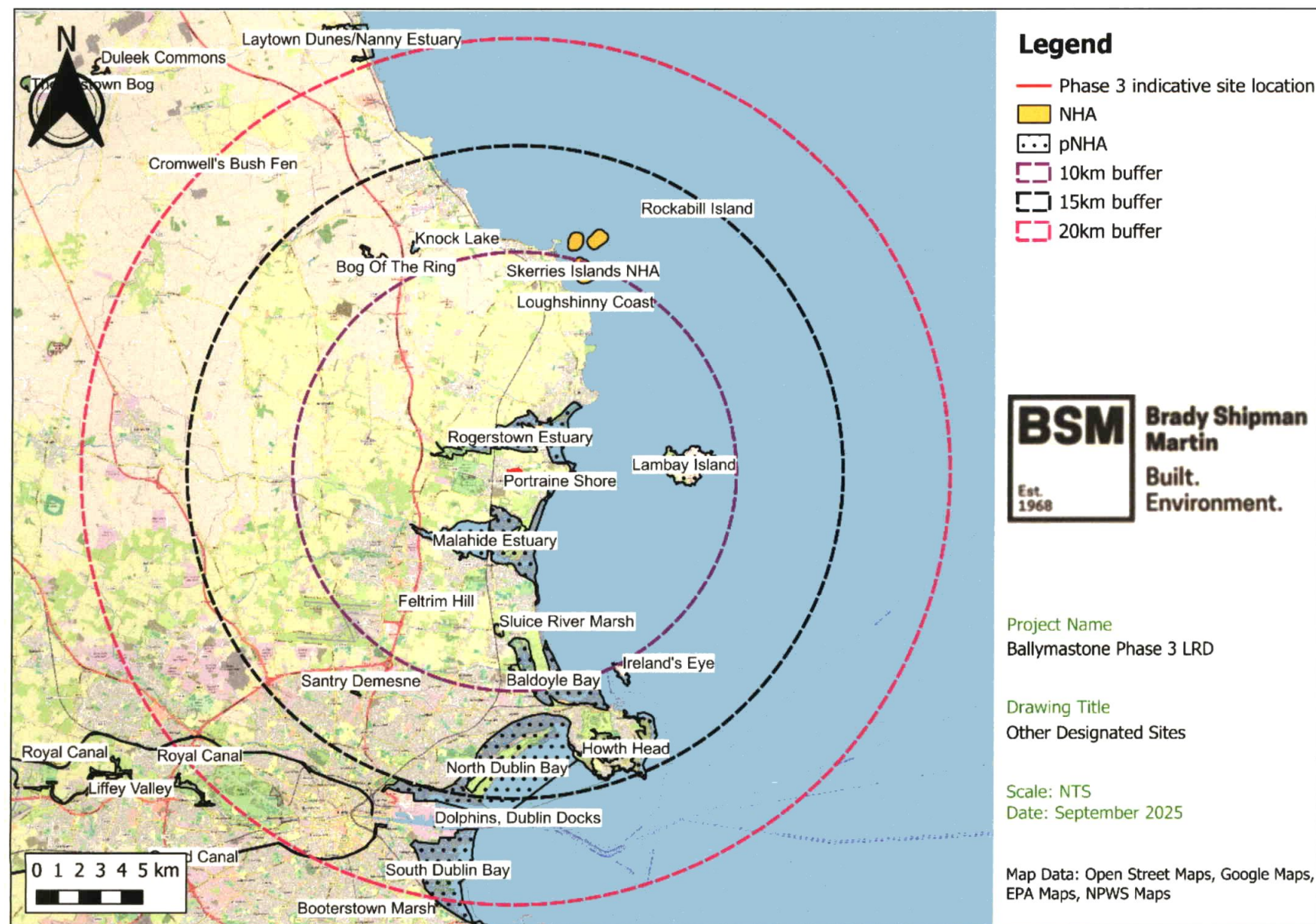


Figure 4.2 - NHAs and pNHAs within potential Zone of Influence of the proposed development. 10, 15 and 20km radii are shown for scale.

4.4 Potential significant effects from the proposed development

4.4.1 Potential significant effects during construction phase

The proposed development site, which comprises the final phase of three large-scale residential developments of which the first two are already permitted and under construction, is located between Rogerstown Estuary (to the north) and Malahide Estuary (to the south).

As confirmed in the Infrastructure Design Report, prepared by DBFL Consulting Engineers and submitted separately (see also Section 3.2.1.2) all surface water arising at the Phase 3 site flows north and eventually discharges to Rogerstown Estuary, c.850m to the north via either the existing 1350mm surface water culvert to the northwest of the site (Catchment 4) or via the existing ditches which eventually flow to the Portrane Canal (Catchment 5). See Figure 3.2 in Section 3.2.1.2.

As confirmed in the Hydrological & Hydrogeological Qualitative Risk Assessment (HHQRA), prepared by AWN Consulting and included at Appendix IV to this NIS there is no possibility of any construction phase effects on Malahide Estuary SAC or SPA (c.1.6km to the south) or to the North-West Irish Sea SPA (c. 1.7km to the east). There is no feasible hydrological pathway to these European sites from the subject site due to the significant distances. The HHQRA also states that *there is no direct hydrogeological (groundwater) connection to the Malahide Estuary SPA/SAC, due to the distance of separation (minimum 1.7km) being greater/larger than the local underground flow paths within the aquifer (<1km). The vertical migration to the underlying bedrock is minimised due to the low aquifer vulnerability (indicative overburden thickness 10m+ Clay), thereby further negating the potential for a hydrogeological linkage pathway to the sensitive receptors. There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.*

Estuaries and coastal sites such as Rogerstown Estuary rely on large quantities of sediment to function. Regardless, all construction activities pose a potential risk to watercourses as surface water arising at any site may contain contaminants. The main contaminants arising from construction, demolition and site clearance activities may include suspended solids, hydrocarbons and concrete/cement products. If not properly managed, such pollutants arising at the Phase 3 site during construction could pose a temporary risk to surface water quality in local watercourses during the site clearance and construction phases. Also, during the construction phase there is potential for an increase in run-off due to compaction of the soil which will in turn reduce the infiltration capacity and increase the rate and volume of surface water run-off. This can increase surface water run-off and sediment loading which has potential to impact the local drainage and in turn the Rogerstown Estuary downstream.

- There is the potential for significant effects on Rogerstown Estuary SAC and Rogerstown Estuary SPA (only) via surface water (only) due to sedimentation and run-off (contaminated surface water) during construction.

The proposed site clearance and construction works may be expected to involve noisy activities, dust-generating activities, construction traffic and machinery, and the generation of waste material for off-site disposal. Typical environmental effects are predicted, including elevated levels of noise, emissions of dust, and direct and indirect greenhouse gas emissions. These are all addressed in the EIAR. Generally speaking, these effects will be short-term in duration, reversible and localised. Existing vegetation of local ecological value will also be cleared under the scope of the proposed works.

The species of Malahide Estuary SPA and SAC are sensitive to noise, vibration and visual disturbance. These factors may for example reduce feeding times or cause birds to temporarily avoid certain areas. This can potentially occur during site clearance and construction operations associated with any proposed development. However, at c. 850m the proposed development site is not in close proximity to any of the European

sites. There is no possibility of noise, vibration, visual or any other kind of disturbance arising during construction and affecting the species associated with any European site. There is, further, no possibility of any *ex-situ* effects (effects on birds roosting or feeding outside any of the designated sites).

As previously stated, the bird fauna recorded on the site is as expected for such a site and there is no habitat on the site suitable for use, even on a very occasional basis, by any overwintering birds, such as pale-bellied Brent goose, black-tailed godwit, curlew or any other protected bird species listed as a Special Conservation Interest (SCI) in any European site within the Zone of Influence. No such species, and no evidence of such species (e.g. droppings), has been recorded on the site despite extensive survey work having taken place at the site (including as part of the surveys for the permitted Phase 1 and 2 developments, now under construction).

There are no features suitable for use by waders within the Ballymastone Phase 3 lands. The site is effectively surrounded by permitted/under construction development to the south, and by existing development to the west. It is also on the western side of the DDR. There is no possibility of any visual disturbances to birds that may utilise the Donabate Golf Club lands for *ex situ* feeding. Different species of birds have different tolerance thresholds to noise and visual disturbance and therefore construction works and other operations impact upon different species in differing ways. Furthermore, birds are liable to habituation to both aural and visual disturbance stimuli (Cutts *et al.*, 2013¹³). Development context is an important consideration in assessing disturbance potential, reflecting both the existing environmental considerations, as well as the sensitivity and importance of water birds in the area and the likely construction activities. As birds are already habituated, 'loud' works in a generally 'loud' environment may cause little actual ongoing disturbance whilst quieter works in a quiet environment may potentially have a greater disturbance effect in some instances (Cutts *et al.*, 2013).

Ballymastone Phases 1 and 2, currently under construction, are immediately adjacent to the Phase 3 development. Therefore, the receiving environment is already disturbed and the delivery of Phase 3 will not result in significant effects on bird species.

The Waterbird Disturbance Mitigation Toolkit also states that different types of disturbance stimuli are characterised by different avifaunal reactions. Generic guidelines at present are precautionary for consenting requirements and employ an approach distance to 300m and a low noise threshold figure of 55dB. A 70dB noise threshold has however been developed over a period of years, based on published data as well as findings from primary observations (e.g. Cutts, Phelps & Burdon, 2009¹⁴). It is considered that the threshold works as a general rule but is relatively simplistic as it does not take into account the type of stimuli or the species of bird involved.

- Given the nature, location, scale and duration of the construction phase for the proposed development there will be no likely significant effects via disturbance on Rogerstown Estuary SPA and SAC (or indeed on Malahide Estuary SPA and SAC or any other European site).
- There is no possibility of any other potential direct, indirect or secondary impacts on any European site during the construction phase. For example, there will be no land-take from any European site and there will be no resource requirements such as water abstraction. Similarly, there will be no emissions to air from construction vehicles that could remotely impact any European site. Dust, noise and vibration arising during construction will similarly be entirely remote from any European site.

¹³ Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects https://gat04-live-1517c8a4486c41609369c68f30c8-aa81074.divio-media.org/filer_public/8f/bd/8fbd7e9-ea6f-4474-869f-ec1e68a9c809/11367.pdf

¹⁴ Cutts, N. Phelps, A. and Burdon, D. (2009) Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Report to Humber INCA. Available at: https://hoverclub.org.uk/langstone/Assessments_reports/Construction%20and%20waterfowl%20Response_impact_guidance.pdf

4.4.1.1 Site compound location

The proposed site compound area (see Figure 3 of the preliminary CEMP prepared by DBFL) is not used by SPA bird species, and it is not expected that there will be any impacts on any SPA bird species.

4.4.1.2 Lighting

Lighting during the construction phase will be limited to the site compound and the proposed residential development areas. Given the location of both the site compound and the proposed residential development it is not expected that there will be any impacts on the bird species of Rogerstown Estuary SAC and SPA, or on any other biodiversity receptors. Again, given the location of this feature there will be no impacts on the bird species of the SPAs or on any other biodiversity receptors (and therefore there will be no impacts on the integrity of any European sites).

4.4.2 Potential impacts during operation

During the operational phase, typical environmental aspects and effects associated with the presence and operation of a development of this nature and scale are also predicted, including potable water consumption, foul water loading to the municipal network, and direct and indirect greenhouse gas emissions. Operational phase effects are expected to be permanent in duration.

As noted in the Infrastructure Design Report, prepared by DBFL Consulting (2025) and discussed in Section 3.2 of this NIS, surface water runoff from the development once complete will be managed using the infrastructure permitted and constructed as part of the permitted Phases 1 and 2 as well as appropriate SuDS techniques as set out in the Fingal Development Plan 2023-2029.

Even in the total absence of any attenuation or SuDS measures there would be no impacts on any European sites. The distances to European sites and the natural characteristics of the receiving waters ensure rapid mixing of water such that there is no possibility of any appreciable effect on water quality in European sites in any event. Refer to Appendix IV for more details.

As made clear in the Site-Specific Flood Risk Assessment (SSFRA) that has been prepared by DBFL Consulting Engineers (October 2025) for the proposed development, the site is in Flood Zone C and is appropriate for such development. Refer to Section 3.2.1.4

Significant operational phase effects related to surface water management (or flooding – the subject site is in Flood Zone C), arising as a result of the operation of the proposed development, on European sites or otherwise, can therefore be excluded.

As confirmed in DBFL's Infrastructure Design Report (see also Section 3.2.1.3), the subject site has no existing foul loading as it is mainly greenfield. According to records, there is an existing 300mm foul sewer running through the constructed Donabate Distributor Road.

The proposed foul drainage system for Phase 3 will have two different connection points to the existing foul drainage network (see the DBFL IDR for more details).

A foul pump station, located in the northern part of the subject site has already been permitted as part of the Phase 2 project. This new pump station will serve the majority of the proposed Phase 3 development.

There is also a new Uisce Éireann foul pump station that was recently constructed to the south of the subject site. This will serve the southern side of the proposed Phase 3 development

The capacity available at Portrane WwTP is sufficient to accommodate the inflow arising from the proposed development and it will, therefore, be possible to maintain the unpolluted status of the waters of the Irish Sea. A Confirmation of Feasibility (COF) and Statement of Design Acceptance (SODA) have been received from Uisce

Éireann, confirming that a Wastewater connection can be facilitated and that the design is in accordance with Uisce Éireann Standards. A Connection offer has also been received as part of the construction of Phase 2 which states the acceptance from Irish Water of the pump station design and location.

Significant operational effects related to foul water management, arising as a result of the operation of the proposed development, on European sites or otherwise, can therefore be excluded.

The proposed development will involve the removal of much of the existing area of the site and its replacement with residential development, open space and infrastructure. This includes the removal of fields and a proportion of the hedgerow and tree lines within the site. However, significant sections of the existing field boundaries, hedgerows and trees within the site will be retained within the proposed open space areas.

The proposed development site is of no importance as a feeding site for the bird species (the Special Conservation Interests) associated with Rogerstown Estuary, Malahide Estuary, or any other SPA. The habitat and sward are unsuitable to be used even occasionally or by small numbers of light-bellied Brent geese and waders and none were found on the lands during the extensive survey work undertaken.

Hence, no likely impacts on the nearby SAC and SPA are predicted due to change of land-use on the site.

The potential for increased visitor numbers to coastal amenity areas as a result of an increase in the local population (and consequent disturbance to habitats and species) has been considered, however the proposed development does not include any proposals to facilitate increased access towards any European sites. The proposed development site is zoned for residential use under the Fingal County Development Plan 2023 – 2029 and the Donabate Local Area Plan 2016 – 2021 (as extended). It would result in a marginal increase in the town's population in keeping with the level advocated under the core strategy and objectives of the LAP for this area, which was itself subject to SEA and AA.

The proposed development will include the construction of new buildings, ranging from 2- to 6-storeys. However, the proposed development site is at a significant remove from the nearest SPA and the risk of collision is imperceptible. Birds tend to fly higher than the tallest obstruction in their flightpath and also to fly at a greater height between foraging sites. The proposed development site is not an important site for light-bellied Brent geese or any other overwintering species. No issues arise via the disruption of flight lines for birds.

For the reasons set out above, no pNHA have the potential to be affected by the proposed development in a manner that could directly or indirectly affect any European Sites or their QI / SCI, taking into account their Conservation Objectives.

- There is no possibility of any other potential direct, indirect or secondary impacts on any European site once the proposed development is operational. There will be no loss, fragmentation, disruption, disturbance or other change to any element of any European site as a result of the operation of the proposed development, and no interference with the key relationships that define the structure or function of any European site.

Operation-related impacts as a result of the proposed development, on European sites or otherwise, can therefore be excluded.

A detailed discussion of the potential impacts of the proposed development on individual European sites within the potential Zone of Influence is presented in **Table 4.1**, below.

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Table 4.1 Potential effects on European sites in the potential Zone of Influence

Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
Special Areas of Conservation (SAC)			
Rogerstown Estuary SAC (site code 000208), c. 850m to the north	[1130] Estuaries [1140] Mudflats and sandflats not covered by seawater at low tide [1310] <i>Salicornia</i> and other annuals colonising mud and sand [1330] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)* According to this SAC's site Conservation Objectives document (Version 1, dated 14 August 2013), for each of the listed QIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	The proposed development site is hydrologically connected to this European site via the surface water network discharging to the north (catchments 4 and 5). See Section 4. Although the presence of a pathway does not automatically mean there is a likelihood of significant effects, in this case, and based on the precautionary principle, significant effects on water quality, and therefore on the site's QIs, cannot be ruled out. Surface / ground water arising during the site clearance and construction of the proposed development, could contain pollutants (foul water, silt, hydrocarbons and other chemicals). Such contaminated water could potentially discharge to the ground or the local surface water drainage network and from there, eventually, to the estuary. This may impact upon the protected habitats and species which make up the qualifying interests of the SAC. Though it is considered that there will be a very low amount of sediments displaced as a result of construction that may leave the immediate working area, further assessment is required in the NIS because any pollution arising during construction has the potential to impact the qualifying interests of the SAC. As set out in Section 4, there is no possibility of a significant effect arising via any other pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	YES
Malahide Estuary SAC (site code 000205), c. 1.6km to the south	[1140] Mudflats and sandflats not covered by seawater at low tide [1310] <i>Salicornia</i> and other annuals colonising mud and sand [1320] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1330] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is approximately 1.6km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	NO

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)* According to this SAC's site Conservation Objectives document (Version 1, dated 27 May 2013), for each of the listed QIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.		
Rockabill to Dalkey Island SAC (site code 003000), c. 4km to the east	[1170] Reefs [1351] Harbour Porpoise (<i>Phocoena phocoena</i>) According to this SAC's site Conservation Objectives document (Version 1, dated 7 May 2013), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is approximately 4km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
Lambay Island SAC (site code 000204), c. 6.4 km to the north-east	[1170] Reefs [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [1351] Harbour Porpoise (<i>Phocoena Phocoena</i>) [1364] Grey seal (<i>Halichoerus grypus</i>) [1365] Harbour seal (<i>Phoca vitulina</i>) According to this SAC's site Conservation Objectives document (Version 2, dated 17 Dec 2024), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is over 6km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
Baldoye Bay SAC (site code 000199), c. 7.6 km to the south-east	[1140] Mudflats and sandflats not covered by seawater at low tide [1310] Salicornia and other annuals colonising mud and sand [1330] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) According to this SAC's site Conservation Objectives document (Version 1, dated 19 November 2012), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is almost 8km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
Ireland's Eye SAC (site code 002193), c. 9.9 km to the north-east	[1220] Perennial vegetation of stony banks [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts According to this SAC's site Conservation Objectives document (Version 1, dated 27 January 2017), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is almost 10km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
North Dublin Bay SAC (site code 000206), c.11.1km to the south	[1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] Salicornia and other annuals colonising mud and sand [1330] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1395] Petalwort (<i>Petalophyllum ralfsii</i>) [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is approximately 1.6km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	[2110] Embryonic shifting dunes [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2190] Humid dune slacks According to this SAC's site Conservation Objectives document (Version 1, dated 6 November 2013), for each of the listed QIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.		
Howth Head SAC (site code 000202), c. 12km to the south-east	[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths According to this SAC's site Conservation Objectives document (Version 1, dated 6 December 2016), for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is over 12km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
South Dublin Bay SAC (site code 000210), c. 16.6 km to the south	[1140] Mudflats and sandflats not covered by seawater at low tide The following habitats are listed as Qualifying Interests on the NPWS website, but are not included in the Conservation Objectives document: [1210] Annual vegetation of drift lines [1310] Salicornia and other annuals colonising mud and sand [2110] Embryonic shifting dunes)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SAC. It is almost 17km distant and is unconnected via the surface water pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SAC as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	According to this SAC's site Conservation Objectives document (Version 1, dated 22 August 2013), for the listed QI, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat for which the SAC has been selected.		
Special Protection Areas (SPA)			
Rogerstown Estuary SPA (site code 004015), c. 850m to the north	[A043] Greylag Goose (<i>Anser anser</i>) [A046] Brent Goose (<i>Branta bernicla hrota</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A056] Shoveler (<i>Anas clypeata</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A137] Ringed Plover (<i>Charadrius hiaticula</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A143] Knot (<i>Calidris canutus</i>) [A149] Dunlin (<i>Calidris alpina alpina</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A162] Redshank (<i>Tringa tetanus</i>) [A999] Wetlands According to this SPA's site Conservation Objectives document (Version 1, dated 20 May 2013), for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.	The proposed development site is hydrologically connected to this European site via the surface water network discharging to the north (catchments 4 and 5). See Section 4. Although the presence of a pathway does not automatically mean there is a likelihood of significant effects, in this case, and based on the precautionary principle, significant effects on water quality, and therefore on the site's SCIs, cannot be ruled out. Surface / ground water arising during the site clearance and construction of the proposed development, could contain pollutants (foul water, silt, hydrocarbons and other chemicals). Such contaminated water could potentially discharge to the ground or the local surface water drainage network and from there, eventually, to the estuary. This may impact upon the protected wetland habitat that makes up the special conservation interests of the SPA. Though it is considered that there will be a very low amount of sediments displaced as a result of construction that may leave the immediate working area, further assessment is required in the NIS because any pollution arising during construction has the potential to impact the SCIs of the SPA. As set out in Section 4, there is no possibility of a significant effect arising via any other pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development. This includes disturbance effects of any kind.	YES
Malahide Estuary SPA (site code 004025), c.1.6km to the south	[A005] Great Crested Grebe (<i>Podiceps cristatus</i>) [A046] Brent Goose (<i>Branta bernicla hrota</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A054] Pintail (<i>Anas acuta</i>) [A067] Goldeneye (<i>Bucephala clangula</i>) [A069] Red-breasted (<i>Merganser Mergus serrator</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is approximately 1.6km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	[A141] Grey Plover (<i>Pluvialis squatarola</i>) [A143] Knot (<i>Calidris canutus</i>) [A149] Dunlin (<i>Calidris alpina alpina</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A162] Redshank (<i>Tringa tetanus</i>) [A999] Wetlands According to this SPA's site Conservation Objectives document (Version 1, dated 16 August 2013), for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.		
North-West Irish Sea SPA (site code 004236), c.1.7km to the east	[A065] Common Scoter (<i>Melanitta nigra</i>) [A001] Red-throated Diver (<i>Gavia stellata</i>) [A003] Great Northern Diver (<i>Gavia immer</i>) [A009] Fulmar (<i>Fulmarus glacialis</i>) [A013] Manx Shearwater (<i>Puffinus puffinus</i>) [A018] Shag (<i>Phalacrocorax aristotelis</i>) [A017] Cormorant (<i>Phalacrocorax carbo</i>) [A862] Little Gull (<i>Hydrocoloeus minutus</i>) [A188] Kittiwake (<i>Rissa tridactyla</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A182] Common Gull (<i>Larus canus</i>) [A183] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A184] Herring Gull (<i>Larus argentatus</i>) [A187] Great Black-backed Gull (<i>Larus marinus</i>) [A195] Little Tern (<i>Sterna albifrons</i>) [A192] Roseate Tern (<i>Sterna dougallii</i>) [A193] Common Tern (<i>Sterna hirundo</i>) [A194] Arctic Tern (<i>Sterna paradisaea</i>) [A204] Puffin (<i>Fratercula arctica</i>) [A200] Razorbill (<i>Alca torda</i>)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is approximately 1.7km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	[A199] Guillemot (<i>Uria aalge</i>) According to this SPA's site Conservation Objectives document (Version 1, dated 19 September 2023), for each of the listed SCIs, the Conservation Objective maintain or restore the favourable conservation condition of the species for which the SPA has been selected.		
Lambay Island SPA (site code 004069), c.6.3km to the east	[A009] Fulmar (<i>Fulmarus glacialis</i>) [A017] Cormorant (<i>Phalacrocorax carbo</i>) [A018] Shag (<i>Phalacrocorax aristotelis</i>) [A043] Greylag Goose (<i>Anser anser</i>) [A183] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A184] Herring Gull (<i>Larus argentatus</i>) [A188] Kittiwake (<i>Rissa tridactyla</i>) [A199] Guillemot (<i>Uria aalge</i>) [A200] Razorbill (<i>Alca torda</i>) [A204] Puffin (<i>Fratercula arctica</i>) According to this SPA's site Conservation Objectives document (Version 1, dated 19 November 2024), for each of the listed SCIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is over 6km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
Baldoye Bay SPA (site code 004016), c.7.7km to the south	[A046] Brent Goose (<i>Branta bernicla hrota</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A137] Ringed Plover (<i>Charadrius hiaticula</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A999] Wetlands According to this SPA's site Conservation Objectives document (Version 1, dated 27 February 2013), for each of	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is almost 8km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.		
Skerries Islands SPA (site code 004122), c.9.1 km to the north	[A017] Cormorant (<i>Phalacrocorax carbo</i>) [A018] Shag (<i>Phalacrocorax aristotelis</i>) [A046] Light-bellied Brent goose (<i>Branta bernicla hrota</i>) [A148] Purple sandpiper (<i>Calidris maritima</i>) [A169] Turnstone (<i>Arenaria interpres</i>) [A184] Herring Gull (<i>Larus argentatus</i>) According to this SPA's site Conservation Objectives document (Version 1, dated 19 November 2024), for each of the listed SCIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is over 9km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
Ireland's Eye SPA (site code 004117), c.9.5km to the south-east	[A017] Cormorant (<i>Phalacrocorax carbo</i>) [A184] Herring Gull (<i>Larus argentatus</i>) [A188] Kittiwake (<i>Rissa tridactyla</i>) [A199] Guillemot (<i>Uria aalge</i>) [A200] Razorbill (<i>Alca torda</i>) According to this SPA's site Conservation Objectives document (Version 1, dated 12 November 2024), for each of the listed SCIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is over 9km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
Rockabill SPA (site code 004014), c.9.6km to the north-east	[A148] Purple sandpiper (<i>Calidris maritima</i>) [A192] Roseate tern (<i>Sterna dougalii</i>) [A193] Common tern (<i>Sterna hirundo</i>) [A194] Arctic tern (<i>Sterna paradisaea</i>)	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is almost 10km distant and is unconnected via any pathway.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
	According to this SPA's site Conservation Objectives document (Version 1, dated 8 May 2013), for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	
North Bull Island SPA (site code 004006), c.11.1km to the south	[A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A052] Teal (<i>Anas crecca</i>) [A054] Pintail (<i>Anas acuta</i>) [A056] Shoveler (<i>Anas clypeata</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A143] Knot (<i>Calidris canutus</i>) [A144] Sanderling (<i>Calidris alba</i>) [A149] Dunlin (<i>Calidris alpina</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A160] Curlew (<i>Numenius arquata</i>) [A162] Redshank (<i>Tringa totanus</i>) [A169] Turnstone (<i>Arenaria interpres</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A999] Wetlands According to this SPA's site Conservation Objectives document (Version 1, dated 9 March 2015), for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is over 11km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

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Site	Reasons for designation (information correct as of October 2025) (*denotes a priority habitat under the Habitats Directive)	Discussion of Source-Pathway-Receptor Link	Likely (potential) Significant Effect?
Howth Head Coast SPA (site code 004113), c. 12.0 km to the south-east	[A188] Kittiwake (<i>Rissa tridactyla</i>) According to this SPA's site Conservation Objectives document (Version 1, dated 29 October 2024), for the listed SCI, the Conservation Objective is to restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is approximately 12km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No
South Dublin Bay and River Tolka Estuary SPA (site code 004024), c. 14.5 km to the south-east	[A144] Sanderling (<i>Calidris alba</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A149] Dunlin (<i>Calidris alpina</i>) [A162] Redshank (<i>Tringa totanus</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A143] Knot (<i>Calidris canutus</i>) [A192] Roseate Tern (<i>Sterna dougallii</i>) [A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A194] Arctic Tern (<i>Sterna paradisaea</i>) [A193] Common Tern (<i>Sterna hirundo</i>) [A137] Ringed Plover (<i>Charadrius hiaticula</i>) [A999] Wetlands According to this SPA's site Conservation Objectives document (Version 1, dated 9 March 2015), for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species and wetland habitat for which the SPA has been selected.	As is made clear in this report (see Section 4) there is no direct hydrological, hydrogeological or any other pathway between the proposed development and this SPA. It is over 14km distant and is unconnected via any pathway. As set out in Section 4, there is no possibility of a significant effect arising via any pathway on this SPA as a result of the construction or operation of the proposed Ballymastone Phase 3 development.	No

4.5 Summary of potential impacts of the proposed development

Given the location of the proposed development at Ballymastone Phase 3, as well as its nature and scale, and connections to services including water supply and surface water / foul infrastructure, it is possible to rule out potential significant adverse effects arising out of the proposed development on the following European sites that are located within the potential zone of influence of the proposed development:

- Malahide Estuary SAC
- Rockabill to Dalkey Island SAC
- Lambay Island SAC
- Baldoyle Bay SAC
- Ireland's Eye SAC
- North Dublin Bay SAC
- Howth Head SAC
- South Dublin Bay SAC
- Malahide Estuary SPA
- North-West Irish Sea SPA
- Lambay Island SPA
- Baldoyle Bay SPA
- Skerries Island SPA
- Ireland's Eye SPA
- Rockabill SPA
- North Bull Island SPA
- Howth Head Coast SPA
- South Dublin Bay and River Tolka Estuary SPA

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There will be no loss of any habitat or species listed as a QI or SCI of any designated site as a consequence of the proposed development, whether during construction or operation. There is, therefore, no potential for the effects of habitat loss or fragmentation to occur. These sites have been screened out at Stage 1 Appropriate Assessment Screening because they are at such a distance from the proposed development site that there would not be any significant effects on them as a result of:

- Habitat loss and/or fragmentation;
- Land-take;
- Resource requirements such as water abstraction;
- Impacts to habitat structure;
- Disturbance to species of conservation concern;
- Mortality to species (such as roadkill);
- Light pollution;
- Noise pollution;
- Emissions to air (including dust);
- Emissions to water.

However, it is not possible, at this Stage 1 Appropriate Assessment Screening, to rule out the potential that the proposed development would have any significant effects on the following European sites:

- Rogerstown Estuary SAC
- Rogerstown Estuary SPA

These sites have been screened in because of the potential, during the construction phase only, for there to be significant effects via the hydrological pathway.

4.6 In-combination Effects

The consideration of in-combination effects has been dealt within the Section 5.4 of this NIS.

4.7 Mitigation specific to European sites

This screening assessment is consistent with the judgment of the European Court in Case C-323/17, *People Over Wind & Sweetman v Coillte* (Judgment of the Court (Seventh Chamber) of 12 April 2018) and the recent case-law of the High Court, including *Heather Hill Management Company CLG v An Bord Pleanála* [2019] IEHC 450 and *Sweetman v An Bord Pleanála* [2020] IEHC 39.

It is also consistent with the judgment in *Eco Advocacy CLG v An Bord Pleanála* [2021] IEHC 265. In that case, Humphreys J confirmed the core legal principle, being that regard should not be had to mitigation measures at AA screening stage. Humphreys J decided in that case that clarification was required from the CJEU on the matter (as it related to the consideration of SUDs and whether these represented mitigation measures).

The CJEU, in its ruling on this case dated 15 June 2023 clarified issues defining mitigation in the context of European sites¹⁵. It confirmed that Article 6(3) of Directive 92/43 *must be interpreted as meaning that, in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site.*

Hydrological connectivity to a total of two European sites (Rogerstown Estuary SAC and SPA) has been identified in Section 4 and with the nature of the works proposed there is a pathway for impacts on these European sites. Therefore, the proposed development has been subjected to a Stage 2 Natura Impact Statement (NIS).

4.8 Screening conclusion

According to the Office of the Planning Regulator Guidance on Appropriate Assessment-

'Measures intended to avoid or reduce impacts to European sites are commonly referred to as 'mitigation measures'. Any measure or feature of the development that is wholly or partially included in order to avoid or reduce impacts to European sites cannot be considered for the purposes of screening out the need for appropriate assessment'.

As mitigation measures cannot be proposed at the screening stage to avoid or reduce impacts on any European sites a Natura Impact Statement is required.

In view of best scientific knowledge, this report concludes that the proposed development at Ballymastone (Phase 3); individually or in combination with another plan or project, has potential to have significant effect on the following European sites:

¹⁵<https://curia.europa.eu/juris/document/document.jsf?text=&docid=274644&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=21723482>

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- Rogerstown Estuary SAC
- Rogerstown Estuary SPA

This assessment was reached without considering or taking into account mitigation measures or measures intended to avoid or reduce any impact on European sites.

5 Stage 2 Appropriate Assessment

5.1 Introduction

The information contained in this Stage 2 AA NIS complies with the provisions of Article 6(3) of the Habitats Directive. It assesses the implications of the proposed development on its own and in combination with other plans and project on two European sites in view of their conservation objectives. It is intended to assist the competent authority (the FCC) to assess, in accordance with the provisions of Habitats Directive, whether, in the event that the proposed development is granted, there will be any adverse effects on the integrity of the site (s) concerned. Where required, mitigation measures will be listed.

The potential for impacts to arise on European sites as a result of the proposed development has been identified in Section 4 of this report.

5.2 Conservation objectives, threats and vulnerabilities of the European Sites

A key aim of the Habitats Directive is to 'maintain or restore the favourable conservation status of habitats and species of community interest'. Site-specific conservation objectives aim to define favourable conservation condition for particular habitats or species within a European site. In the case of European sites for which site-specific conservation objectives have not yet been prepared, generic conservation objectives have been provided by NPWS.

The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

Site specific conservation objectives for **Rogerstown Estuary SAC** were published on 14 August 2013 (Version 1.0). The conservation objectives are:

- To maintain or restore the favourable conservation condition of each of the Qualifying Interests (habitats), as defined by the range of attributes and targets set out;
- The attributes include habitat area, habitat distribution, physical structure (sediment supply, creeks & pans and flooding regime), vegetation structure (zonation, vegetation height, vegetation cover), vegetation composition (typical species, negative indicators);
- For each attribute the target as set out in the Conservations Objectives document is to maintain or restore the existing conditions.

Site specific conservation objectives for **Rogerstown Estuary SPA** were published on 20 May 2013 (Version 1.0). The conservation objectives are:

- To maintain the favourable conservation condition of each of the Special Conservation Interests (the bird species and the wetland habitat), as defined by the range of attributes and targets set out;
- The attributes include population trend and distribution (bird species) as well as the wetland habitat;
- For each attribute the target as set out in the Conservations Objectives document is as follows:
 - Population trend: the long term population should be stable or increasing;
 - Distribution: There should be no significant decrease in the range, timing or intensity of use of areas by waterbird species of Special Conservation Interest other than that occurring from natural patterns of variation;

- Wetland habitat: The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation.

5.3 Appraisal of Likely effects on European Sites

5.3.1 Potential impacts on the conservation objectives of the European sites

5.3.1.1 Potential impacts on the conservation objectives of Rogerstown Estuary SAC

The conservation objective is to maintain or restore the favourable conservation condition of each of the 7no. habitats that are listed as Qualifying Interests in Rogerstown Estuary SAC.

Potential impacts on the Conservation Objectives are assessed in this Section. Where necessary these will be avoided by appropriate construction and water management measures and other mitigation measures as set out in Section 5.5 of this NIS as well as in the Preliminary Construction and Environmental Management Plan submitted as part of this application.

5.3.1.2 Potential impacts on the conservation objectives of Rogerstown Estuary SPA

The conservation objective is to maintain the favourable conservation status of the 11no. bird species which are listed as Special Conservation Interests in Rogerstown Estuary SPA, as well as the wetland habitat in the SPA.

Potential impacts on the Conservation Objectives are assessed in this Section. Where necessary these will be avoided by appropriate construction and water management measures and other mitigation measures as set out in Section 5.5 of this NIS as well as in the Construction and Environmental Management Plan submitted as part of this application.

Together, these measures will ensure that the attributes and their respective targets defined as part of the conservation objectives for the SPA, will not be impacted upon by the proposed development.

5.3.2 Predicted impacts on European sites (Rogerstown Estuary SAC and SPA) during the construction phase

5.3.2.1 Water Quality

The proposed development site is located within 1km of Rogerstown Estuary and there is a potential surface water pathway to the estuary, via outfalls that are already permitted as part of Phases 1 and 2. As described in the previous sections, during construction there is the potential, in the absence of mitigation measures, for accidental discharge of hazardous material to surface water which may impact upon the downstream protected habitats and species which make up the qualifying interests of Rogerstown Estuary SAC and special conservation interests of Rogerstown Estuary SPA.

As confirmed in the EIAR, given the nature, scale and duration of the construction phase for the proposed development there is potential for short-term moderate negative impacts on water quality during the construction phase of the proposed development.

There is no possibility of any other significant effect (and no possibility of an adverse impact) on any other European site, during construction or operation.

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AWN Consulting Ltd has prepared a Water Framework Directive Screening Assessment for the proposed development. The screening report is submitted separately as an Appendix to Chapter 10 of the EIAR. The following text is extracted from the conclusion of that report:

The proposed development site discharges to the existing 1350mm surface water culvert to the northwest of the site (Catchment 4) and to the Ballalease North (Portrane stream) BALLYBOGHIL_010 (European Code: IE_EA_08B012200) river waterbody, both of which eventually outfall to the Rogerstown Estuary to the north (c. 0.85km linear distance at the point of closest proximity).

The WFD assessment indicates that, based on the current understanding of the proposed development, there is no potential for adverse or minor temporary/ long-term or localised effects on the Beaverstown stream (Rahillion/Ballyboghil_010), Portrane stream (Ballalease North/Ballyboghil_010) or the Rogertown Estuary transitional waterbody.

Therefore, it has been assessed that the proposed development will not cause any significant deterioration or change in water body status or prevent attainment, or potential to achieve, future good status or to meet the requirements and/or objectives in the Water Action Plan 2024 - A River Basin Management Plan for Ireland, (Department of Housing Local Government & Heritage, Sept 2024).

The WFD assessment indicates that there is no potential for adverse or minor temporary or localised effects on the Swords GWB. Therefore, it has been assessed that it is unlikely that the proposed development will cause any significant deterioration or change on its water body status or prevent attainment, or potential to achieve the WFD objectives or to meet the requirements and/or objectives in the Water Action Plan 2024 - A River Basin Management Plan for Ireland, (Department of Housing Local Government & Heritage, Sept 2024).

No further assessment of WFD is recommended given that no significant deterioration or change in water body status is expected based on the current understanding of the proposed development during construction and operation.

AWN Consulting Ltd has also prepared a Hydrological and Hydrogeological Qualitative Risk Assessment (HHQRA) for the proposed development. The report is included at Appendix IV to this NIS. The following text is extracted from the conclusion of that report:

A conceptual site model (CSM) has been prepared following a desk top review of the site and surrounding environs. Based on this CSM, plausible Source-Pathway-Receptor linkages have been assessed assuming an absence of any measures intended to avoid or reduce harmful effects of the proposed project (i.e., mitigation measures) in place at the proposed development site.

The proposed development (design / drainage strategy) site has no direct hydrological pathway or connection to any of the above listed areas of protection and conservation which are located downgradient of the proposed development site. The proposed development would have an indirect hydrological pathway / linkage to the Rogerstown Estuary and Northwestern Irish Sea and the corresponding associated Natura 2000 conservation / protection areas via the proposed surface water (stormwater) drainage and the foul (wastewater) network which outfalls to Rogerstown Estuary (post treatment onsite) and Northwestern Irish Sea (post treatment at Portrane WWTP) respectively, albeit the source pathway linkage is over a moderate distance allowing for significant attenuation and large dilution factor within the drainage design, and downstream in the river / estuary catchment and Northwestern Irish Sea.

There is no direct source pathway linkage between the Proposed Development site and any open waters or Natura 2000 sites (i.e., Rogerstown estuary SAC/SPA). There is an indirect source pathway linkage from the Proposed Development through the foul public sewer which will eventually discharge to the

Portrane WWTP and ultimately discharges to Northwest Irish Sea SPA (1.7 km east / downgradient of the proposed site). The future development has a peak foul discharge that would equate to 1.13% of the licensed discharge at Portrane WWTP (peak hydraulic capacity). It should be noted that the Portrane WwTP has capacity for this proposed foul effluent (AER, 2024).

The proposed development site has a very low potential for a hydrogeological connection / linkage with the Rogerstown Estuary SPA/SAC designated sites listed above via the underlying aquifer due to lengthy underground flow path distances (minimum 0.85km) in an aquifer, which is characterised by low fracture connectivity, discrete local fracturing with little connectivity rather than large, well-connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local (less than 1km). Such a hydrogeological linkage / connection does involve a significant dilution factor downgradient in the aquifer (Swords GWB) and estuaries. Additionally, vertical migration to the underlying bedrock is minimised where overburden soil cover is thick across the site resulting in good natural aquifer protection from any localised diesel/ fuel oil spills during either construction or operational phases. There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.

The proposed development would have no direct hydrogeological (groundwater) connection to the Malahide Estuary SPA/SAC, due to the distance of separation (minimum 1.6km) being greater/larger than the local underground flow paths within the aquifer (<1km). The vertical migration to the underlying bedrock is minimised due to the low aquifer vulnerability (indicative overburden thickness 10m+ Clay), thereby further negating the potential for a hydrogeological linkage pathway to the sensitive receptors.

Even disregarding the construction operation of design mitigation measures including an attenuation system and petrol interceptors on site, it is concluded that there will be imperceptible impacts from the proposed development to the water bodies due to emissions from the site stormwater drainage infrastructure to the wider drainage network. It should be noted the proposal also includes an attenuation system, SuDS design measures and petrol / hydrocarbon interceptors as part of best practice project design, and these features will provide additional filtration from the site to the drainage network.

It is concluded that there are no pollutant linkages as a result of the construction or operation of the Proposed Development which could result in a water quality impact which could alter the habitat requirements of the Natura 2000 sites within Rogerstown Estuary (SPA/SAC/pNHA) and the Northwestern Irish Sea (North-West Irish Sea SPA).

Finally, and in line with good practice, appropriate and effective mitigation measures will be included in the construction design, management of construction programme and during the operational phase of the proposed development. With regards to the construction phase, adequate mitigation measures will be incorporated in the Construction Environmental Management Plan (CEMP). These specific measures will provide further protection to the receiving soil and water environments. However, the protection of downstream European sites is in no way reliant on these measures and they have not been taken into account in this assessment.

5.4 In-combination effects

It is a requirement of Section 177U of the Planning Acts that, when considering whether a plan or project will have a significant effect on a European site, the assessment must take into account in-combination effects with other plans and projects. The assessment should consider plans and projects

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that are completed, approved but uncompleted, or proposed (but not yet approved)¹⁶. If there are identified effects arising from the plan or project, even if they are perceived as minor and not likely to have a significant effect on the integrity of a European site alone, then these effects must be considered in combination with the effects arising from other plans and projects.

This NIS has considered three categories of potential in-combination plans / projects for the proposed development based on the following:

- Existing or commenced projects with a valid planning permission within the vicinity of the proposed development that have the potential for significant in-combination effects with the proposed development;
- Approved projects with a valid planning permission that have not commenced construction but with potential for significant in-combination effects with the proposed development; and
- Proposed projects that do not have planning permission but have the potential for significant in-combination effects with the proposed development.

A search for other developments that may have the potential to result in in-combination impacts with the proposed development was carried out, and a list of key developments for consideration was developed (**Table 5.1**). In identifying these developments, the following principal sources were consulted (as of September 2025):

- Fingal County Council planning portal;
- Fingal County Council weekly lists of applications received;
- An Coimisiún Pleanála (ACP) website;
- Department of Housing, Local Government and Heritage EIA Portal;
- *Fingal Development Plan 2023-2029*;
- *Donabate Local Area Plan 2016 (as extended)*.

The proposed development lies within the FCC administrative area. Therefore, the site is subject to the land use policies and objectives of the Development Plan, which has zoned the lands in question as 'RA – Residential Area' which has the stated aim '*Provide for new residential communities subject to the provision of the necessary social and physical infrastructure.*' As such, the use of the lands as proposed in this LRD application is in accordance with the zoning and envisaged future development for the lands, as set out in the Development Plan.

As required under Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive') and the Habitats Directive, a Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) have been completed in respect of the Development Plan, respectively.

Table 5.1 provides a list of relevant permitted and proposed developments in the vicinity of the site, which have been given due consideration in the assessment of potential in-combination impacts. **Figures 5.1** and **5.2** map these developments in relation to the proposed development site.

The list of developments in this section is non-exhaustive. There are a wide variety of other applications and permissions in the area. However, minor developments, such as one-off housing, erection of signage and other minor structures and extensions, have been excluded due to the absence of potential for significant in-combination impacts. Lapsed and refused permissions have also been excluded.

¹⁶ Assessment of Plans and Projects Significantly Affecting European sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001)

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Table 5.1 Permitted and proposed developments to which regard has been had in the assessment of potential in-combination impact

Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
Permitted Developments / Under Construction					
LRD0008/S3/ABP-315288-22	Glenveagh Living Limited	Ballymastone, Donabate, Co. Dublin	Ballymastone Phase 1 The development consists of the construction of a residential development, which represents Phase 1 of the wider development of the Ballymastone Lands (as identified in the Donabate Local Area Plan 2016 (as extended)), ranging in height from 2 to 6 storeys to accommodate 432 no. residential dwellings (including a mix of apartments, duplexes and houses), a crèche and public open space. The site will accommodate 554 no. car parking spaces, 831 total no. bicycle parking spaces, new pedestrian/cycle links, road improvements, storage, services and plant areas. Landscaping will include communal amenity areas, and a significant public open space provision.	Permission granted by An Coimisiún Pleanála on 28 March 2023. Partly constructed / Partly under construction	EIAR; NIS; SSFRA
LRD0039/S3ABP-320885-24	Glenveagh Living Limited	Lands at Ballymastone, Donabate, Co Dublin	Ballymastone Phase 2 The development consists of the construction of a residential development, which represents Phase 2 of the wider development of the Ballymastone Lands (as identified in the Donabate Local Area Plan 2016 (as extended)), ranging in height from 2 to 6 storeys to accommodate 364 no. residential dwellings (including a mix of apartments, duplexes and houses), a foul pump station and public open space. The site will accommodate 278 no. car parking spaces, 1457 total no. bicycle parking spaces, new pedestrian/cycle links, road improvements, storage, services and plant areas. Landscaping will include communal amenity areas, and a significant public open space provision.	Permission granted by An Coimisiún Pleanála on 13 Jan 2025. Due to commence construction	EIAR; NIS; SSFRA

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
LRD0017/S3	Aledo Donabate Ltd	Corballis East, Donabate, Co Dublin	Aledo Donabate Residential Development The development consists of the construction of 1,020 no. new residential dwellings on the Main Residential Development Site, provision of 2 no. childcare facilities, provision of 3 no. retail units, 2 no. café units, a community use unit and a medical centre at the proposed local centre area, total of 902 no. car parking spaces are proposed, 39 no. on-street visitor parking spaces, together with a total of 3,013 no. bicycle parking spaces, series of public parks, open spaces, pocket parks and communal open spaces are proposed throughout the Main Residential Development Site, provision of the Corballis Nature Park, vehicular access to the Main Development Site will be via two existing junctions from the DDR to the south and a new vehicular entrance to the north-east at New Road and all other ancillary works above and below ground on a site of approximately 41.9 ha.	Permission granted by Fingal County Council on 23 February 2024. Partly constructed / Partly under construction	EIAR; NIS; SSFRA
F22A/0527	Glenveagh Homes Limited	Corballis East, Donabate, Co Dublin	Residential Development at Corballis East The development, which will consist of: the construction of 96 No. residential units, 1 No. two storey creche, vehicular access from the Donabate Distributor Road; internal roads, footpaths and a shared pedestrian and cyclist link, 166 No. car parking spaces bicycle and bin stores; hard and soft landscaping; boundary treatments; green roof; solar panels; plant; 2 No. ESB substations; lighting; signage; drainage works; and all other associated site and development works above and below ground.	Permission granted by Fingal County Council on 30 August 2023. Under Construction	AA, NIS; EclA; Archaeological Assessment; SSFRA; EIA Screening
F20A/0204/ABP-308446-20	Aledo Donabate Limited	Lands to the South of Main Street, Corballis East,	Residential Development at lands South of Main Street, Corballis East The development will consist of 55 no. residential units, 3 no. retail units, public open spaces, upgrades to the public road,	Permission granted by An Coimisiún Pleanála on 6 September 2021.	AA; Bat Assessment; Archaeological

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
		Donabate, Co Dublin	reconstruction of the existing car park serving Smyths Bridge House (a Protected Structure), upgrade of the existing entrance onto Main Street, internal access roads, water services including a pumping station, surface water attenuation tank and detention basin, public lighting, 1 no. ESB substation and utilities.	Under Construction	Impact Assessment
F17A/0373 ABP-249206	Tilberry Limited	Lands at New Road, Ballisk, Donabate, Co. Dublin.	Residential Development at Ballymastone – Balcarrick Road A residential development of 151 no. residential units and 1 no. crèche/childcare facility to include: 41 no. 2.5 storey, 3 bedroom terrace dwellings; 2 no. 2.5 storey, 3 bedroom semi-detached dwellings; 9 no. 2 storey, 2 bedroom detached dwellings; 9 no. 2 storey, 3 bedroom detached dwellings; 90 no. 2 bedroom duplex units arranged in a split level design over three storeys; and 1 no. 2 storey crèche/childcare facility all with associated car parking. Planning permission is also sought for 1 no. new link road with new pedestrian and vehicular entrance from existing New Road connecting to 'The Links' (existing residential estate to the north) along with 2 no. additional vehicular and pedestrian entrances to the proposed development from New Road and associated upgrade works.	Permission granted by An Coimisiún Pleanála on 17 April 2019. Under Construction	EIA Screening, EclA, AA Screening, SSFRA,
FCC Reg. Ref. LADP/0001/24 (S179A)	Fingal County Council	New Road, Donabate, Co. Dublin	Section 179A – New Road, Donabate FCC intends to carry out a housing development under S179A(5) of the Planning and Development Act 2000 (as amended) on a c. 4.72ha site at New Road, Donabate, Co. Dublin. The proposed housing development will include for the construction of 175 no. dwelling units and a single storey crèche of c. 365 sq.m. The development will also include 2 no. multi-modal exits onto New Road, 2 no. multi-modal connections to existing and under construction developments to the north and east, 139 no. car parking spaces, cycle parking, bin stores, hard	Approved on 08 April 2024. Under Construction	AA Screening

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			and soft landscaping, PV panels, public and community amenity spaces and all associated site development works. The proposed development was put to Councillors at a meeting held on 8th April 2024, where the proposal was subject to 5 no. motions proposed by Councillors. The agenda item relating to the proposed development was noted by Councillors, and construction has commenced.		
F23A/0134	St Patrick's GAA Clubhouse Donabate	On lands at, Robbie Farrell Park, Ballymastone, Donabate, Co Dublin	St Patrick's GAA Clubhouse Donabate Planning Permission for an extension to their existing detached, single storey clubhouse. The proposed development will see the reconfiguration of the existing building and the construction of an extension to the east, south and west elevations at ground floor level and a new first floor level to provide for additional dressing rooms, shower rooms and toilets, meeting rooms, sports hall/ gymnasium, physio room, club offices and club shop, storage and 2no. balconies at first floor level; along with all associated site, drainage, including new wastewater treatment system and engineering works necessary to facilitate the development.	Permission granted by Fingal County Council on 05 July 2023.	
PARTXI/004/21 (Part 8)	Fingal County Council	Ballymastone, Donabate, Co. Dublin	Ballymastone Recreational Hub This multifunctional campus will provide for an extensive range of sporting and recreational activities as a shared public facility; these include a floodlit 8 no. lane all-weather athletics track surrounding a grass soccer sized pitch, a full sized all-weather GAA pitch which also provides for 2 no. all-weather soccer pitches with flood lighting, a combined playground and skate park, car / cycle parking, a 6m wide access road, extensive walking and cycling infrastructure, bleacher seating and extensive landscape planting .	Approved on 14 September 2021.	AA Screening; EIA Screening; SSFRA

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
YA06F.304624	Fingal County Council	Malahide Demesne, Kilcrea, Newbridge Demesne, Donabate, Fingal, County Dublin	Broadmeadow Way - Greenway between Malahide Demesne and Newbridge Demesne The greenway would travel along a linear site extending c. 6km in length between Malahide Castle and Newbridge House and their surrounding parklands. The site travels through various landscapes including demesne landscapes and parklands, estuarine/coastal landscape (foreshore), rural/agricultural lands and urban and residential environments. It commences at Malahide Demesne, then travels along the northern side of the R106 regional road, through a residential laneway (O'Hanlon's Lane) and onto Bissets Strand. At that point it rises to the same level as the Dublin to Belfast railway embankment and crosses Malahide Estuary alongside the existing railway line. The site continues through agricultural lands at Kilcrea and crosses the River Pill at two locations. It continues onwards to Corballis road and then travels westwards through agricultural lands, after which it crosses the new Donabate Distributor Road (Phase 1). Thereafter it crosses Hearse Road and travels onwards to its finishing point at Newbridge Demesne.	Permission granted by An Coimisiún Pleanála on 19 May 2020. Under construction	EIAR; NIS
F21A/0056	Glenveagh Homes Limited	Semple Woods, Hearse Road, Donabate, Dublin	Semple Woods, Hearse Road Residential Development The proposed development consists of amendments to the northern portion (0.9ha) of the permitted residential development under Fingal County Council Ref. F17A/0113, including the following: Replacement of the permitted Apartment Block 2 and 3 no. three bed houses to the west thereof with a new part three, part four storey Apartment Block containing 29 units (14 no. 1 bed apartments and 15 no. 2 bed apartments) and a bicycle storage area at ground floor level; Internal and external amendments to the eastern section of the permitted Apartment Block 1, including the replacement of 8 no. 2 bed apartments	Retention permission and planning permission granted by Fingal County Council on 31 August 2021 Mostly constructed / North-east section of the scheme partly under construction	AA Screening

Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			with 8 no. 1 bed apartments and 4 no. 2 bed apartments from ground to third floor, with associated revisions to building elevations to provide additional balconies and windows, together with a revised roof design. Internal and external amendments to the western section of the permitted Apartment Block 1; Revision of the layout of the vehicular parking areas to the north and south of Apartment Blocks 1 and 2. A total of 90 no. car parking spaces are provided, with 80 no. spaces allocated to serve the future residents of Apartment Blocks 1, 2 and 3, 8 no. spaces serving visitors, and 2 no. spaces serving the permitted childcare facility at the ground floor level of Block 3; Retention and completion of 2 no. ESB substations located along the north-western and eastern boundary; The provision of 4 no. bicycle and bin storage structures, a revised landscaping and public lighting design, and all associated and ancillary site development works. The proposed amendments will provide 12 no. additional apartment units, increasing the number of units on the overall development site from 251 units to 263.		
F17A/0113	McGarrell Reilly Homes	Lands at Hearse Road, Donabate, Co. Dublin	Semple Woods, Hearse Road Residential Development The construction of 196 no. houses, 62 no. apartments and a crèche, with two vehicular access points from Hearse Road, and access to two houses only from Prospect Hill. The proposal includes a route through the development to the future pedestrian bridge over the railway. Works to Hearse Road include two access points, new footpaths and a new pedestrian and cycle entrance to Newbridge Demesne and also the provision of 1.075ha open space in the proposed nature park on the coast road at Corballis, Donabate. The proposed development includes all associated site works and infrastructure which includes landscaped open spaces, internal roads, paths, cycle-paths, public	Permission granted by Fingal County Council on 15 January 2018. Mostly constructed / North-east section of the scheme partly under construction	AA Screening; EIA Screening (Schedule 7A information) SSFRA

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			lighting, utilities, pump station, drainage and surface water attenuation and works to Hearse Road and associated entrance to Newbridge Demesne.		
TA06F.306794	Elchoir Construction Limited	Lands adjacent to the existing residential development known as 'The Gallery', Turvey Walk, off Turvey Avenue, To the west of Donabate Train Station, Donabate, Co. Dublin	Residential Development at Turvey Avenue Elchoir Construction Limited lodged a SHD planning application to An Bord Pleanála on 4th March 2020 at lands adjacent to the existing residential development known as 'The Gallery', Turvey Walk, off Turvey Avenue, to the west of Donabate Train Station, Donabate, Co. Dublin. The development consists of 144 no. apartments and 1 no. retail unit in three blocks, all over a single basement. The site has a total area of 1.16ha with a density of 124 units per hectare and is 3-5 storeys in height over basement.	Permission granted by An Coimisiún Pleanála on 10th August 2020. Under construction	EIA Screening; AA Screening
F20A/0630	Drumargh Ltd	Lands at Turvey Walk, fronting Turvey Avenue, adjacent to Donabate Train Station, and the residential development of The Gallery, Donabate, Co Dublin	Mixed-use Development at Turvey Walk Permission for a mixed use (Retail convenience foodstore, 4 no. retail units and a café unit) development in 2 no. Blocks as follows: 1) Block 01: Two storey structure (with plant room at roof level) comprising 4no. retail units at ground floor level, internal ESB substation, car park at ground floor level, providing for car and bicycle parking spaces, and a licensed retail convenience foodstore at first floor level (1,187m²net floor area) including an off licence. 2) Block 02: Change of use of existing residential dwelling and provision of an extension to now provide for a single storey café unit. 3) Demolition of shed structure, removal of portacabin and construction of a public plaza development with landscaping, seating and bicycle parking to serve Block 2. 4) Utilisation of existing vehicular and pedestrian access with associated widening and improvements, including	Permission granted by Fingal County Council on 09 June 2021.	

Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			provision of a right hand turn on Turvey Avenue. 5) New internal access roundabout with associated landscaping. 6) Loading Bay. 7) Landscaping. 8) Boundary Treatments. 9) And all ancillary site and engineering works necessary to facilitate the development.		
F24A/0169	Marshall Yards Development Company Limited	Corballis East, Donabate, Co Dublin	Residential Development at Corballis East The permitted development, which will have a total Gross Floor Area of 8,028 sqm, will consist of: the construction of a Residential Development comprising 98 no. units including 70 no. two storey houses, 4 no. three storey 4 bed houses, and 6 no. two storey maisonette buildings comprising a total of 24 no. 1 bed units. The development will also comprise of: alterations to the access road associated with the Residential Development permitted under Fingal County Council Reg. Ref. F22A/0527; the provision of internal roads and footpaths; pedestrian connections to the Donabate Distributor Road; pedestrian and vehicular connections to the adjoining site to the west (subject to a Live Planning Application for a Large-Scale Residential Development as per Fingal County Council Reg. Ref. LRD0017/S3); 73 no. car parking spaces; 5 no. car club spaces; bicycle and bin stores; hard and soft landscaping; balconies and terraces; boundary treatments; solar panels; 2 no. ESB substations; public lighting; and all other associated site and development works above and below ground.	Permission granted by Fingal County Council on 28 January 2025.	EIA Screening, AA Screening & NIS
ABP-311059-21 SHD/006/20	Aledo Donabate Limited	Corballis East, Donabate, Dublin	Residential Development at Corballis East The development consists of the construction of a residential development of 1,365 no. new residential dwellings (including a mix of apartments and houses), residential amenities, 3 no. childcare facilities, 7 no. retail/café units, car parking spaces,	Permission granted with Conditions by An Coimisiún Pleanála on 10 November 2022. Under construction	EIAR, NIS, AASR

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			2,613 bicycle parking spaces, public open spaces, road improvements and services.		
F18A/0618 ABP-304904-19	Aledo Donabate Limited	Lands to the south of Main Street and Balcarrick Road (R126), Corballis East, Donabate, Co. Dublin.	Corballis East Upgrades The development will consist of strategic open spaces, upgrades to the public road, reconfiguration of the existing car park serving Smyths Bridge House (A Protected Structure), upgrade of existing entrance onto Main Street, new access from Balcarrick Road, internal access roads, water services and a pumping station, and utilities. These proposed works are to facilitate future residential development including reserved sites for new primary school and local neighbourhood centre at Corballis East, as provided for in the Donabate Local Area Plan 2016. It is proposed to provide a Nature Park of 13.63 ha. and 3 no additional parks of 1.4437 ha, 0.6788 ha, and 0.3856 ha. The proposed internal road infrastructure comprises a hierarchy of 2,320m of Linking Roads and 4,680 m of Local Access Roads. It is proposed to reconfigure the existing permitted car park serving Smyths Bridge House to accommodate pedestrian, cyclist and limited vehicular access to the site, and 46 no. replacement car parking spaces, and including the upgrade 140m of Main Street including the Balcarrick Road Junction. Proposed potable surface and foul water services and utilities, will be provided under the proposed roadways. Proposed works include SUDS wetland area in the Nature Park, and a wastewater pumping station set within a fenced compound of 320 sq.m. accessed off the Donabate Distributor Road (under construction).	Permission refused by An Coimisiún Pleanála on 16 January 2020.	EIAR, NIS
F23A/0192	Aledo Donabate Ltd	Corballis East, Donabate, County Dublin	Corballis East Construction Access The development will consist of the provision of construction access and haul road (total length approx. 494m), to facilitate the	Permission granted by Fingal County Council on 25 July 2023	AA, EclA,

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			construction of development permitted under Reg. Ref. F20A/0204 (ABP PL06F.308446), on a site of approx. 1.1ha. The haul road extends from the existing access onto the Donabate Distributor Road (R126), northwards towards Main Street, Donabate, to connect with the site associated with Reg. Ref. F20A/0204 (ABP PL06F.308446). The haul road infrastructure works include: • Temporary road surface finish with a width of approx. 5.5m and length of approx. 494m; • Incorporation of swales along the proposed haul road edge which will discharge to a temporary drainage basin; and • All ancillary and associated site development, drainage, landscape and boundary treatment works. It is intended that this additional haul route will assist in reducing the level of construction traffic accessing the site via the permitted construction and development access from Main Street, Donabate. On completion of development permitted under Reg. Ref. F20A/0204 (ABP PL06F.308446), the extent of the haul route will be reinstated to its current agricultural use or incorporated into future development of zoned lands at Corballis East.	Under construction	
F21A/0708 ABP-313836-22	Packside Ltd (Applicant)	Lands at Turvey Avenue, Donabate, County Dublin	Aldi Store Donabate A single storey retail development consisting of 1 no. retail supermarket of 1,320 sq.m net floorspace (1,835 sq.m) (including ancillary off-licence) and additional associated storage, staff facilities, plant room, loading bay, signage, 80 no. car parking spaces at surface level and 16 no. bicycle parking spaces at surface level, landscaping, boundary treatments and all associated site and engineering works necessary to facilitate the development, including moving of proposed bus stop on Turvey Avenue. (The site adjoins a Protected structure).	Permission granted with revised conditions by An Coimisiún Pleanála on 24 January 2024. Under construction	

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
ABP-320164-24	Córas Iompar Eireann	Dublin City Centre and Drogheda, Counties Dublin, Meath and Louth	DART + Coastal North Railway Extension of the existing electrification from Malahide to Drogheda (approx. 37km) including the installation of overhead line equipment & associated substations; infrastructure works to facilitate the increase in service frequency and capacity.	Permission granted (confirmation of Railway Order with conditions) by An Coimisiún Pleanála on 19 August 2025.	EIAR, NIS
PA06f.3121331	Uisce Eireann	New wastewater treatment plant in the townland of Clonshagh and associated sludge hub centre, orbital sewer outfall pipeline and regional biosolids storage facility in various townlands in County Dublin	Clonshaugh WWTP Greater Dublin Drainage Project consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility in County Dublin The Proposed Project will comprise a new Wastewater Treatment Plant (WwTP) at Clonshaugh and associated infrastructure that will serve the projected wastewater treatment requirements of existing and future drainage catchments in the north and north-west of the Ringsend Agglomeration (i.e. catchments currently draining to Ringsend WwTP), up to the Proposed Project's 2050 design horizon. The Proposed Project will therefore protect public health, safeguarding the environment and facilitating social and economic growth to 2050 and beyond.	Permission granted by An Coimisiún Pleanála on 09 July 2025.	EIAR, NIS
ABP-317121	National Transport Authority (NTA)	Swords to Dublin City Centre	BusConnects Swords to City Centre Bus Corridor Scheme The Swords to City Centre Core Bus Corridor Scheme consists of roadworks to facilitate bus, cycle, and urban realm improvements along with any associated ancillary/accommodation works for the scheme. The scheme has an overall length of approximately 12 km. The scheme commences south of Swords at Pinnock Hill Junction and travel in a southerly direction along the R132 Swords Road past Airside Retail Park, Dublin Airport and Santry Park. The route	Permission granted by An Coimisiún Pleanála on 19 June 2024	EIAR & NIS;

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			will continue on the R132 past Santry Demesne, where the Swords Road joins the R104 at Coolock Lane. The route will continue on the R132 in a southerly direction through Santry village. It will continue along the Swords Road past Whitehall to Griffith Avenue. The route will follow Drumcondra Road Upper past the DCU St Patrick's Campus to the river Tolka. It will continue through Drumcondra, on Drumcondra Road Lower to Binns Bridge on the Royal Canal. From there it will continue on Dorset Street Lower as far as Eccles Street, from where it will continue on Dorset Street Upper to North Frederick Street and Parnell Square, all in County Dublin and within the Fingal County Council (FCC) and Dublin City Council (DCC) administrative areas.		
ABP-314724-22	National Roads Authority (Operating as TII)	Metrolink - Estuary through Swords, Dublin Airport, Ballymun, Glasnevin, and City Centre to Charlemont, Co. Dublin	Railway (Metrolink-Estuary to Charlemont via Dubin Airport) Order 2022 The proposed development comprises of a fully segregated and automated railway and metro mostly underground approximately 18.8km in length with 16 stations running from north of Swords at Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and the City Centre to Charlemont in the south of Dublin City Centre. It includes a 9.4km section of single bore tunnel running beneath Dublin City Centre running from Charlemont to Northwood Station and a 2.3km section of single bore tunnel running beneath Dublin Airport. North of Dublin Airport the railway will emerge from tunnel and will run at surface level and in cut and cover structures to Estuary Station. A new 99m bridge will be constructed over the M50 and a 261m long multi-span Viaduct over the Broadmeadow and Ward River. There will be a total of 16 stations, including 11 underground stations at Dublin Airport, Northwood, Ballymun, Collins Avenue, Griffith Park, Glasnevin, Mater, O'Connell Street, Tara, St. Stephen's Green and	Permission granted (confirmation of Railway Order with conditions) by An Coimisiún Pleanála on 30 September 2025	EIAR; NIS

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			Charlemont; 4 retained cut stations at Seatown, Swords Central, Fosterstown and Dardistown and 1atgrade station at Estuary. A multi-storey 3000 space park and ride close to the M1 Motorway will be provided at Estuary Station, a maintenance depot is located near Dardistown Station which will house all the facilities required for the maintenance and operation of the MetroLink and its rolling stock and the Operational Control Centre. The works will also include railway signalling, command and control and communications systems; provision of electrical substations; establishment of temporary construction compounds; establishment of temporary traffic management and road diversions; new and realigned access routes and road junction improvements; diversion of existing utilities; provision of new drainage infrastructure; provision of environmental mitigation measures; and other infrastructural modifications to facilitate the overall project.		
Proposed Developments					
LRD0064/S3E	Cairn Homes Properties Ltd.	Corballis East, Donabate, Co Dublin	Aledo Donabate Residential Development Cairn Homes Properties Limited intends to apply for permission for a Large-Scale Residential Development (LRD), consisting of amendments to an LRD permitted under FCC Reg. Ref. LRD0017/S3, at this site at Corballis East, Donabate, County Dublin. The proposed amendments relate to part of the Main Residential Development Site, as permitted under LRD0017/S3, to the north of the Donabate Distributor Road (DDR) only. No changes are proposed to the permitted Nature Park to the south of the DDR.	Awaiting decision. Application lodged on 26 August 2025 to Fingal County Council	Addendum EIAR; NIS

Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
			The proposed amendments result in an overall decrease of 21 no. units, from 1,020 no. units previously permitted to 999 no. now proposed. The proposed amendments will result in an overall increase in the total number of apartments from 174 no. previously permitted to 278 no. proposed; a reduction in the total number of duplex/triplex units from 356 no. previously permitted to 45 no. proposed (duplex units only); and, an increase in the total number of houses from 490 no. previously permitted, to 676 no. now proposed (including 182 no. back-to-back townhouses). The proposed amendments result in an overall development, that includes the permitted units that are not included within this application, of 999 no. dwellings comprising 130 no. one-bed apartments; 138 no. two-bed apartments and 10 no. three-bed apartments arranged in 6 no. blocks (including 65 no. Independent Living units comprising 53 no. one-bed and 12 no. two-bed apartments); 21 no. one-bed, 2 no. two bed and 22 no. three bed duplex units; and 29 no. two-bed houses; 530 no. three-bed houses; 109 no. four-bed houses and 8 no. five-bed houses on an overall net site area of 25.42ha. The proposed amendments result in an increase in car parking from 902 no. car parking spaces permitted to 922 no. car parking spaces (comprising 844 no. residential spaces; 11 no. childcare facility drop off spaces, 67 no. on-street visitor parking). Bicycle parking spaces will increase from 3,013 no. spaces permitted to 3,291 no. spaces (comprising 3,086 no. long stay spaces and 205 no. short stay spaces). No changes are proposed to vehicular access; pedestrian or cycle access or connections; and the main internal street network or street levels except for some minor modifications to shorter cul-de-sac streets.		

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Ref.	Applicant	Location	Description - overview	Status	Environmental Assessments
ABP-319866-24	North Irish Sea Array Windfarm Limited	Off the coast of counties Dublin, Meath and Louth. The onshore infrastructure will be located in County Dublin	North Irish Sea Array Offshore Wind Farm Offshore wind farm consisting of offshore wind turbine generators, offshore substation platform and subsea cables, landfall and associated infrastructure, grid facility and associated infrastructure, and onshore cables and grid connection.	Awaiting decision. Application lodged on 07 June 2024 to An Coimisiún Pleanála.	EIAR, NIS
F25A/0710E	National Transport Authority (Ian Gourley)	Lissenhall Little, West of the M1-Junction 4, Lissenhall, Co. Dublin	NTA Bus Park & Ride The development will consist of a Park & Ride facility with a total of 733 no. car parking spaces, including 522 standard spaces, 37 spaces for mobility-impaired users (including 29 no. standard and electric vehicle charging spaces, along with 8 no. larger spaces), 72 no. spaces designated for electric vehicles and an additional 72 no. space futureproofed for electric vehicles. Additionally, the facility will include 3 no. bus bays and passenger shelters to enhance accessibility and convenience for users. Provision for active travel will be made with a hardstanding area for a bike shelter and lockers. The scheme will also include hard and soft landscaping, planting, lighting, boundary treatments, surface-foul water drainage, public lighting, CCTV, ESB substation, and all other associated and ancillary works.	Submission registered on 06 August 2025.	EIAR, NIS



Figure 5.1 Permitted and proposed developments to which regard has been had in the assessment of potential in-combination impacts

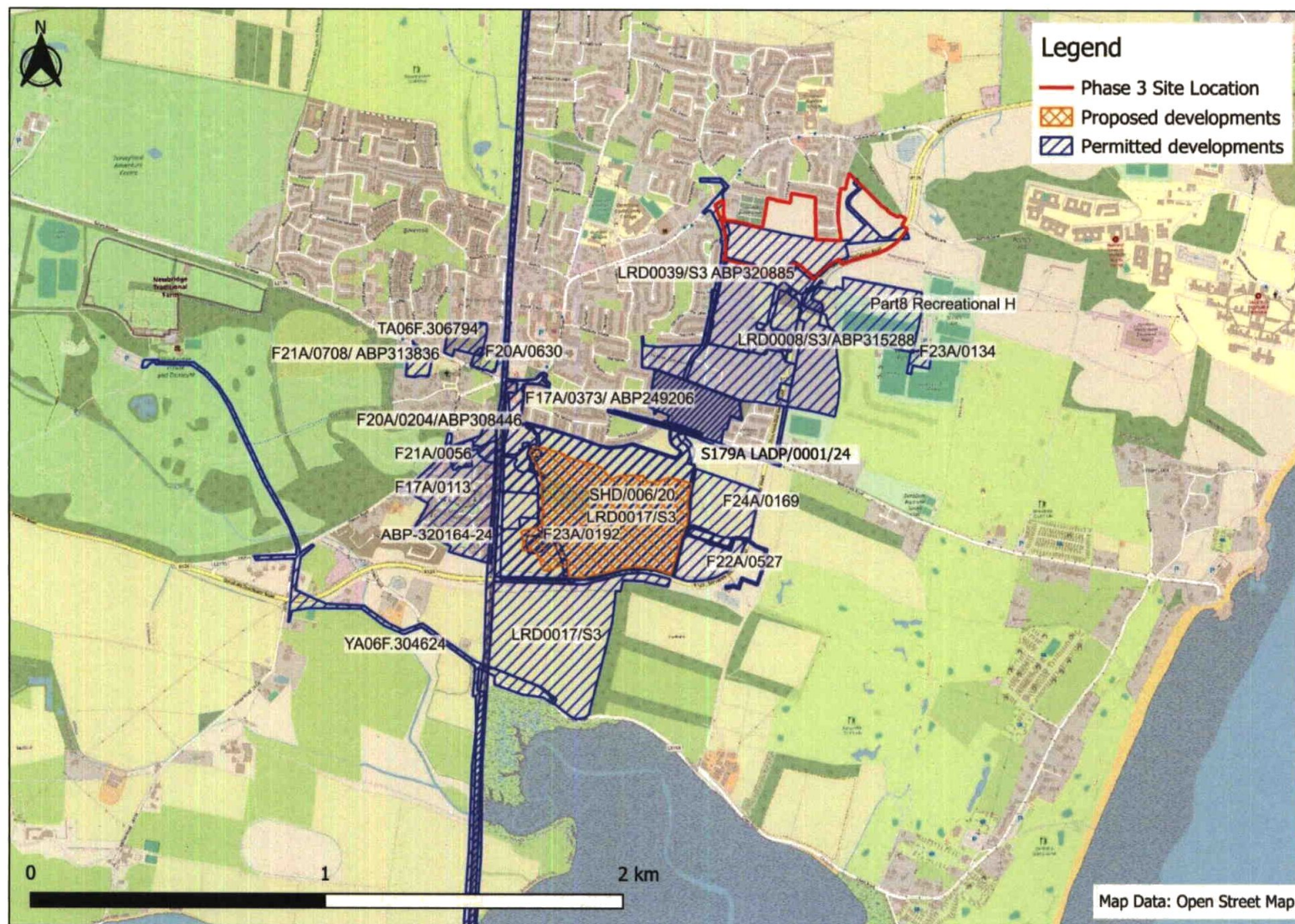


Figure 5.2 - Permitted and proposed developments to which regard has been had in the assessment of potential in-combination impacts

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The Fingal County Development Plan 2023-2029 has a series of objectives intended to protect and enhance the natural environment. For example, the development plan includes policies for the protection of the county's flood plains, to prevent development in flood plains without satisfying the appropriate justification test and to require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving in order to reduce the potential impact of existing and predicted flooding risks. The objectives of the Fingal County Development Plan have themselves been subject to Appropriate Assessments, which have concluded that their implementation would not adversely affect the integrity of European sites. The proposed development along with other developments in the vicinity will incorporate SuDS measures to protect surface water quality and there will, similarly, be no impacts on the integrity of any European sites.

The proposed development will not impact on the flow of water through the area, nor increase potential flood impacts. It is in compliance with all of the relevant Plan objectives.

A number of additional other plans were considered when assessing in-combination effects, but it was determined that there would be no in-combination effects with these:

- Donabate Local Area Plan 2016 (extended 2021 – 2026);
- Revised National Planning Framework (April 2025);
- The Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 – 2031 (The Eastern and Midland Regional Assembly);
- The Greater Dublin Strategic Drainage Study;
- Greater Dublin Area Transport Strategy 2022-2042;
- Climate Action Plan 2025 (Government of Ireland);
- Fingal County Council Fingal Climate Action Plan 2024 – 2029;
- National Biodiversity Action Plan 2023 – 2030.

None of these plans grant development consent so do not in themselves generate a specific adverse effect that can be assessed along with the proposed development for the purposes of the in-combination assessment.

It can therefore be concluded that taking into account these plans and projects no other potential in-combination effects on ecological receptors are expected to arise as a result of the proposed development at Ballymastone Phase 3.

5.5 Mitigation measures

5.5.1 Construction Phase Mitigation (to prevent impacts on Rogerstown Estuary SAC and SPA)

Specific mitigation measures for the European sites of Rogerstown Estuary are set out below and reference should also be made to the preliminary Construction and Environmental Management Plan (CEMP) (prepared by DBFL Consulting Engineers). All works will comply with the requirements of the EIAR, NIS and the CEMP.

The lead contractor will expand upon the preliminary CEMP to produce a detailed CEMP. The CEMP is a live document, and the Contractor will ensure that it remains up to date for the duration of the construction period. The CEMP may need to be altered during the lifecycle of the construction period to take account of monitoring results, legislative changes, outcomes of third-party consultations etc.

Section 5 (Soils and Geology), Section 6 (Water) and Section 11 (Air, Dust and Climate Factors) of the CEMP and Chapter 9 (Lands, Soils, Geology & Hydrogeology), Chapter 10 (Hydrology) and Chapter 11

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(Air Quality) of this EIAR all address the proposed erosion and sediment control measures. The following measures will be implemented for stripping of topsoil, excavation of subsoil layers, surface water runoff, dust suppression and accidental spills and leaks:

- Measures shall be implemented to capture and treat sediment laden surface water runoff within additional sediment retention ponds where waters are not directed to the Phases 1 and 2 permitted attenuation ponds.
- Surface water runoff from areas stripped of topsoil and rainwater collected in excavations shall be directed to on-site settlement ponds/settlement tanks where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- Groundwater pumped from excavations is to be directed to on-site settlement ponds/ distilling tanks.
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds/ distilling tanks.
- On-site settlement ponds are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.
- Surface water discharge points during the construction phase are to be agreed with Fingal County Council's Environment Section prior to commencing works on site.
- Weather conditions and seasonal weather variations shall also be taken account of when planning stripping of topsoil and excavations, with an objective of minimizing soil erosion.
- All oils, fuels, paints and other chemicals will be stored in a secure bunded hardstand area.
- Refuelling and servicing of construction machinery shall take place in a designated hardstand area which is also remote from any surface water inlets (when not possible to carry out such activities off site).
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds.
- A response procedure shall be put in place to deal with any accidental pollution events and spillage kits shall be available and construction staff will be familiar with the emergency procedures and use of the equipment.
- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge.
- Mixer washings are not to be discharged into surface water drains.

5.5.2 Other mitigation measures

General mitigation measures set out in the EIAR include, *inter alia*, measures to prevent impacts via noise, vibration and visual effects, impacts due to habitat loss and disturbance to fauna and operational lighting impacts. While essential in an EIA context, none of these measures are relevant to this Natura Impact Statement and they are not included here. Similarly no operational phase mitigation is necessary in the context of this NIS.

5.5.3 Operational Phase Mitigation Measures (none required to prevent adverse impacts on European sites)

5.5.3.1 Disturbance due to Human Activities

There will be no impacts on any European sites as a result of the proposed development and as a result no corresponding mitigation measures are required.

5.5.3.2 Surface Water Quality

The overall development is designed in accordance with the principles of SuDS as embodied in the recommendations of the GDSDS, which addresses the issue of sustainability by requiring designs to comply with a set of drainage criteria which aim to minimize the impact of urbanization, by replicating the run-off characteristics of the greenfield site. The criteria provide a consistent approach to addressing the increase in both rate and volume of run-off, as well as ensuring the environment is protected from any pollution from roads and buildings. No corresponding mitigation measures are required.

5.5.3.3 Foul Water

There will be no impacts on foul water treatment capacity at the Portrane WwTP as a result of the proposed development. No mitigation measures are required.

5.5.4 Monitoring

A suitably experienced Project Ecologist will be appointed for the duration of the construction phase and regular monitoring of all related works will take place to ensure the correct and full implementation of all mitigation measures. The Project Ecologist will ensure that all construction works take place in accordance with planning conditions, the project CEMP and the mitigation measures set out in the accompanying EIAR. Regular inspection of surface water run-off and sediments controls e.g. silt traps will be carried during the construction phase. During the operational phase, maintenance of the surface water drainage system, including hydrocarbon interceptors, and foul sewers as per normal urban developments is required to minimise any accidental discharges to soil or groundwater.

Although not relevant to this NIS, as noted in the EIAR, vegetation clearance will only be permitted outside the bird-nesting season. Should vegetation clearance be required during the bird nesting season, and should this work be unavoidable, such clearance will take place only after the Project Ecologist has undertaken a survey to ensure that no active bird nests or recently fledged birds are present. Pre-construction surveys will be required to ensure that any necessary tree felling or works to buildings continue to have no impact on roosting bats.

Monitoring of construction dust deposition along the site boundary to nearby sensitive receptors during the construction phase of the proposed development is recommended to ensure mitigation measures are working satisfactorily.

5.6 Residual Impacts

Following the implementation of all mitigation measures set out in this report, there will be no significant impact on any European site arising from the proposed development.

6 Conclusion

This Natura Impact Statement has considered the potential adverse impacts of a proposal by Glenveagh Living Ltd for a residential development at Ballymastone, Donabate, Co. Dublin on the integrity of European sites. The proposed development is Phase 3 of three phases, the first two of which are permitted and under construction.

This report concludes on the best scientific evidence that it can be clearly demonstrated that no elements of the project will result in any impact on the integrity or Qualifying Interests/Special Conservation Interests of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives.

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It is considered that this Natura Impact Statement provides sufficient relevant information to allow the Competent Authority (Fingal County Council) to carry out an Appropriate Assessment, and to reach a determination that the proposed development will not affect the integrity of any of the relevant European sites under Article 6 of the Habitats Directive (92/43/EEC) in light of their conservation objectives.

7 References

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- NPWS (2019). Boundary data –Natural Heritage Area (pNHA). [Update date 28/06/2019].
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Appendix I: Background

The European¹⁷ network is a Europe-wide network of ecologically important sites (SPAs and cSACs – also known as ‘European Sites’ or ‘Natura 2000 sites’) that have been designated for protection under either the EU Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds) or the EU Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna).

The main aim of the Habitats Directive is “to contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies”. Any actions taken must be designed to “maintain or restore, at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest”. Under Article 6 of the Habitats Directive, an assessment is required where a plan or project is not directly connected with or necessary to the management of a European Site but may give rise to significant effects upon a European site.

In addition, it is a matter of law that candidate SACs (cSACs), candidate SPAs (cSPAs) and Sites of Community Importance (SCI) are considered in this process and treated the same as SACs and SPAs.

Article 6 (paragraphs (3) and (4)) of the Habitats Directive states that:

(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The requirements of the Habitats Directive are transposed into Irish law by means of the *European Union (Birds and Natural Habitats) Regulations 2011-2021* (hereafter referred to as the *Birds and Habitats Regulations*)¹⁸ and by the *Planning and Development Act 2000*, as amended.

In Ireland, the statutory agency responsible for the designated areas is NPWS.

Stages in the assessment

European Commission guidance (2021)¹⁹ sets out the principles on how to undertake decision making in applying the Habitats Directive. The requirements of the Habitats Directive comprise three distinct stages”:

¹⁷ The EU Habitats Directive, Article 3.1, states “A Coherent European ecological network of Special Areas of Conservation and Special Protection Areas pursuant to Directive 79/409/EEC shall be set up under the title Natura 2000”

¹⁸ SI No. 477 of 2011 and subsequent amendments

¹⁹ [Assessment of Plans and Projects in relation to Natura 2000 sites: Methodological Guidance on the Provisions of Article 6\(3\) and \(4\) of the Habitats Directive 92/43/EEC \(European Commission Environment Directorate-General, September 2021\)](#)

Stage one: screening. The first part of the procedure consists of a pre-assessment stage ('screening') to ascertain whether the plan or project is directly connected with, or necessary to, the management of a Natura 2000 site, and, if this is not the case, then whether it is likely to have a significant effect on the site (7) (either alone or in combination with other plans or projects) in view of the site's conservation objectives. Stage one is governed by the first part of the first sentence of Article 6(3).

Stage two: the appropriate assessment. If likely significant effects cannot be excluded, the next stage of the procedure involves assessing the impact of the plan or project (either alone or in combination with other plans or projects) against the site's conservation objectives, and ascertaining whether it will affect the integrity of the Natura 2000 site, taking into account any mitigation measures. It will be for the competent authorities to decide whether or not to approve the plan or project in light of the findings of the appropriate assessment. Stage two is governed by the second part of the first sentence and the second sentence of Article 6(3).

Stage three: derogation from Article 6(3) under certain conditions. The third stage of the procedure governed by Article 6(4). It only comes into play if, despite a negative assessment, the developer considers that the plan or project should still be carried out for imperative reasons of overriding public interest. This is only possible if there are no alternative solutions, the imperative reasons of overriding public interest are duly justified, and if suitable compensatory measures are adopted to ensure that the overall coherence of Natura 2000 is protected.

Appendix II Conservation Objectives of European sites

The conservation objectives for a European Site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below²⁰:

The conservation status of a natural habitat will be taken as 'favourable' when:

- its natural range and the area it covers within that range are stable or increasing, and
- the specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable as defined (i).

The conservation status of a species will be taken as favourable when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The 2019 Guidance from the European Commission²¹ indicates that the general objective of achieving FCS for all habitat types and species listed in Annexes I and II to the Habitats Directive needs to be translated into site-level conservation objectives.

The European Commission guidance recommends that screening should fulfil the following steps:

1. ascertaining whether the plan or project is directly connected with or necessary to the management of a Natura 2000 site;
2. identifying the relevant elements of the plan or project and their likely impacts;
3. identifying which (if any) Natura 2000 sites may be affected, considering the potential effects of the plan or project alone or in combination with other plans or projects;
4. assessing whether likely significant effects on the Natura 2000 site can be ruled out, in view of the site's conservation objectives.

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²⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01992L0043-20130701>

²¹ [Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC. \(European Commission 2019\)](#)

Appendix III – Summary of predicted impacts on the European sites within the zone of influence (attribute and target data extracted from NPWS Conservation Objectives documents)

Rogerstown Estuary SAC

Habitat	Estuaries [1130]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	The permanent habitat area is stable or increasing, subject to natural processes. Habitat area was estimated as 268ha using OSi data and the defined Transitional Water Body area under the Water Framework Directive	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community Extent	Maintain the extent of the <i>Zostera</i> -dominated community and the <i>Mytilus edulis</i> -dominated community, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community structure: <i>Zostera</i> density	Conserve the high quality of the <i>Zostera</i> -dominated community, subject to natural processes	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community structure: <i>Mytilus edulis</i> density	Conserve the high quality of the <i>Mytilus edulis</i> -dominated community, subject to natural processes	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community distribution	Conserve the following community types in a natural condition: Sand to coarse sediment with <i>Nephtys cirrosa</i> and	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management

Habitat	Estuaries [1130]		
	<i>Scolecopsis squamata</i> community complex; Estuarine sandy mud to mixed sediment with <i>Tubificoides benedii</i> , <i>Hediste diversicolor</i> and <i>Peringia ulvae</i> community complex		and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).

Habitat	Mudflats and sandflats not covered by seawater at low tide [1140]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	The permanent habitat area is stable or increasing, subject to natural processes. Habitat area was estimated as 370ha	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community Extent	Maintain the extent of the <i>Zostera</i> -dominated community and the <i>Mytilus edulis</i> -dominated community, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community structure: <i>Zostera</i> density	Conserve the high quality of the <i>Zostera</i> -dominated community, subject to natural processes	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community structure: <i>Mytilus edulis</i> density	Conserve the high quality of the <i>Mytilus edulis</i> -dominated community, subject to natural processes	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Community distribution	Conserve the following community types in a natural	Uncontrolled discharge of surface water, sedimentation/pollution,	None. Construction and operational impacts avoided via CEMP,

Habitat	Mudflats and sandflats not covered by seawater at low tide [1140]		
	condition: Sand to coarse sediment with <i>Nephtys cirrosa</i> and <i>Scolecopsis squamata</i> community complex; Estuarine sandy mud to mixed sediment with <i>Tubificoides benedii</i> , <i>Hediste diversicolor</i> and <i>Peringia ulvae</i> community complex	leading to habitat loss/loss of function.	SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).

Habitat	Salicornia and other annuals colonizing mud and sand [1310]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Rogerstown Estuary - 0.9ha.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Habitat distribution	No decline, or change in habitat distribution, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Physical structure: sediment supply	Maintain or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Physical structure: creeks and pans	Maintain creek and pan structure to develop, subject to natural processes, including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).

Habitat	Salicornia and other annuals colonizing mud and sand [1310]		
Physical structure: flooding regime	Maintain natural tidal regime	No impact expected.	None.
Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: vegetation height	Maintain structural variation within sward	No impact expected.	None.
Vegetation structure: vegetation cover	Maintain more than 90% of the area outside of the creeks vegetated	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation composition: typical species and sub-communities	Maintain the presence of species-poor communities with typical species listed in the Saltmarsh Monitoring Project (McCorry and Ryle, 2009)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: negative indicator species- <i>Spartina anglica</i>	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is already known to occur	No impact expected.	None.

Habitat	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Rogerstown Estuary - 37.2ha.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC.

Habitat	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]		
			Monitoring by Ecological Clerk of Works (ECow).
Habitat distribution	No decline, or change in habitat distribution, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECow).
Physical structure: sediment supply	Maintain natural circulation of sediments and organic matter, without any physical obstructions	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECow).
Physical structure: creeks and pans	Allow creek and pan structure to develop, subject to natural processes, including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECow).
Physical structure: flooding regime	Maintain natural tidal regime	No impact expected.	None.
Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECow).
Vegetation structure: vegetation height	Maintain structural variation within sward	No impact expected.	None.
Vegetation structure: vegetation cover	Maintain more than 90% of the area outside of the creeks vegetated	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECow).

Habitat Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]			
Vegetation composition: typical species and sub-communities	Maintain range of sub-communities with typical species listed in the Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Vegetation structure: negative indicator species- <i>Spartina anglica</i>	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is known to occur	No impact expected.	None.

Habitat Mediterranean salt meadows (<i>Juncetalia maritima</i>) [1410]			
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Rogerstown Estuary - 2.18ha.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Habitat distribution	No decline, or change in habitat distribution, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Physical structure: sediment supply	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Physical structure: creeks and pans	Maintain creek and pan structure to develop, subject to natural processes,	Uncontrolled discharge of surface water, sedimentation/pollution,	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management

Habitat	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]		
	including erosion and succession	leading to habitat loss/loss of function.	and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Physical structure: flooding regime	Maintain natural tidal regime	No impact expected.	None.
Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: vegetation height	Maintain structural variation within sward	No impact expected.	None.
Vegetation structure: vegetation cover	Maintain more than 90% of the area outside of the creeks vegetated	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation composition: typical species and sub-communities	Maintain range of sub-communities with typical species listed in the Saltmarsh Monitoring Project (SMP) (McCorry and Ryle, 2009)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: negative indicator species- <i>Spartina anglica</i>	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is already known to occur	No impact expected.	None.

Habitat	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	Area increasing, subject to natural processes, including erosion and	Uncontrolled discharge of surface water, sedimentation/pollution,	None. Construction and operational impacts avoided via CEMP,

Habitat	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]		
	succession. For sub-site mapped: Rush – 1.25ha, Portrane – 1.31ha.	leading to habitat loss/loss of function.	SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Habitat distribution	No decline, or change in habitat distribution, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Vegetation composition: plant health of dune grasses	95% of marram grass (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>) should be healthy (i.e. green plant parts above ground and flowering heads present)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Vegetation composition: typical species and sub-communities	Maintain the presence of species-poor communities dominated by marram grass (<i>Ammophila arenaria</i>) and/or lymegrass (<i>Leymus arenarius</i>)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECoW).
Vegetation structure: negative indicator	No significant expansion of common	No impact expected.	None.

Habitat	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]		
species- <i>Spartina anglica</i>	cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 5% cover		

Habitat	Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2120]		
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	Area increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Rush – 3.24ha, Portrane – 5.13ha.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Habitat distribution	No decline, or change in habitat distribution, subject to natural processes.	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Physical structure: functionality and sediment supply	Maintain natural circulation of sediment and organic matter, without any physical obstructions	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: bare ground	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC.

Habitat	Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2120]		
			Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: sward height	Maintain structural variation within sward	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation composition: typical species and sub-communities	Maintain range of sub-communities with typical species listed in Ryle et al. (2009)	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation structure: negative indicator species (including <i>Hippophae rhamnoides</i>)	Negative indicator species (including non-natives) to represent less than 5% cover	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SAC. Monitoring by Ecological Clerk of Works (ECOW).
Vegetation composition: scrub/trees	No more than 5% cover or under control	No impact expected	None

Rogerstown Estuary SPA

Water bird species			
Attribute	Target	Potential impacts	Predicted impacts
Population trend	Long term population trend stable or increasing	Population change (reduction) arising due to disturbance, reduction in feeding habitat or reduction in habitat quality.	None. This is screened out No loss of or disturbance to suitable habitat will take place.
Distribution	No significant decrease in the range, timing and intensity of use of areas by any of the listed species, other than that occurring	Population change (reduction) arising due to disturbance, reduction in feeding habitat or reduction in habitat quality.	None. This is screened out No loss of or disturbance to suitable habitat will take place.

Water bird species			
	from natural patterns of variation		

Wetland habitat			
Attribute	Target	Potential impacts	Predicted impacts
Habitat area	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646ha, other than that occurring from natural patterns of variation	Uncontrolled discharge of surface water, sedimentation/pollution, leading to habitat loss/loss of function.	None. No loss of or disturbance to suitable habitat will take place. Construction and operational impacts avoided via CEMP, SuDS/surface water management and no works will be undertaken within or in the vicinity of the SPA. Monitoring by Ecological Clerk of Works (ECOW).

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Appendix IV – Hydrological & Hydrogeological Qualitative Risk Assessment

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Hydrological and Hydrogeological Qualitative Risk Assessment

Proposed Residential Development at for Ballymastone (Phase 3) EIAR Residential Development, Donabate, Dublin.

CLIENT

Glenveagh Living
Limited

DOCUMENT REFERENCE

247501.0318

DATE

23 September 2025

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Client Address:	Block C, Maynooth Business Campus, Straffan Rd, Moneycoolly, Maynooth, Co. Kildare, W23 F854

Revision	Revision Date	Description
A	23 September 2025	Issued to the Client

Details	Written by	Approved by
Signature		
Name	Luke Maguire	Marcelo Allende
Title	Environmental Consultant	Principal Hydrological Consultant
Date	23 September 2025	

Disclaimer

This report considers the specific instructions and requirements of our client. It is not intended for third-party use or reliance, and no responsibility is accepted for any third party. The provisions in this report apply solely to this project and should not be assumed applicable to other developments without review and modification.



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1. INTRODUCTION

1.1 Background

AWN have been requested by Glenveagh Living Limited to carry out a Hydrological and Hydrogeological Qualitative Risk Assessment for a residential development located at Ballymastone (phase 3), Donabate, Co. Dublin.

The proposed development site is c. 11.28 hectares (Ha) gross site area which is located at Ballymastone, Donabate, Co. Dublin. The development site is a large greenfield site to the east of Donabate Village. At present, the site is predominantly comprised of greenfield land, with the exception of Part of the site also used as a construction compound under works permitted for Phase 2 by An Coimisiún Pleanála (FCC Ref. LRD0039/S3 & ABP Ref. 320885). The newly constructed extension to the R126 (DDR), which forms the east boundary of the site, allows traffic to bypass Donabate village. The Site contains no building structures or listed / registered Protected Structures.

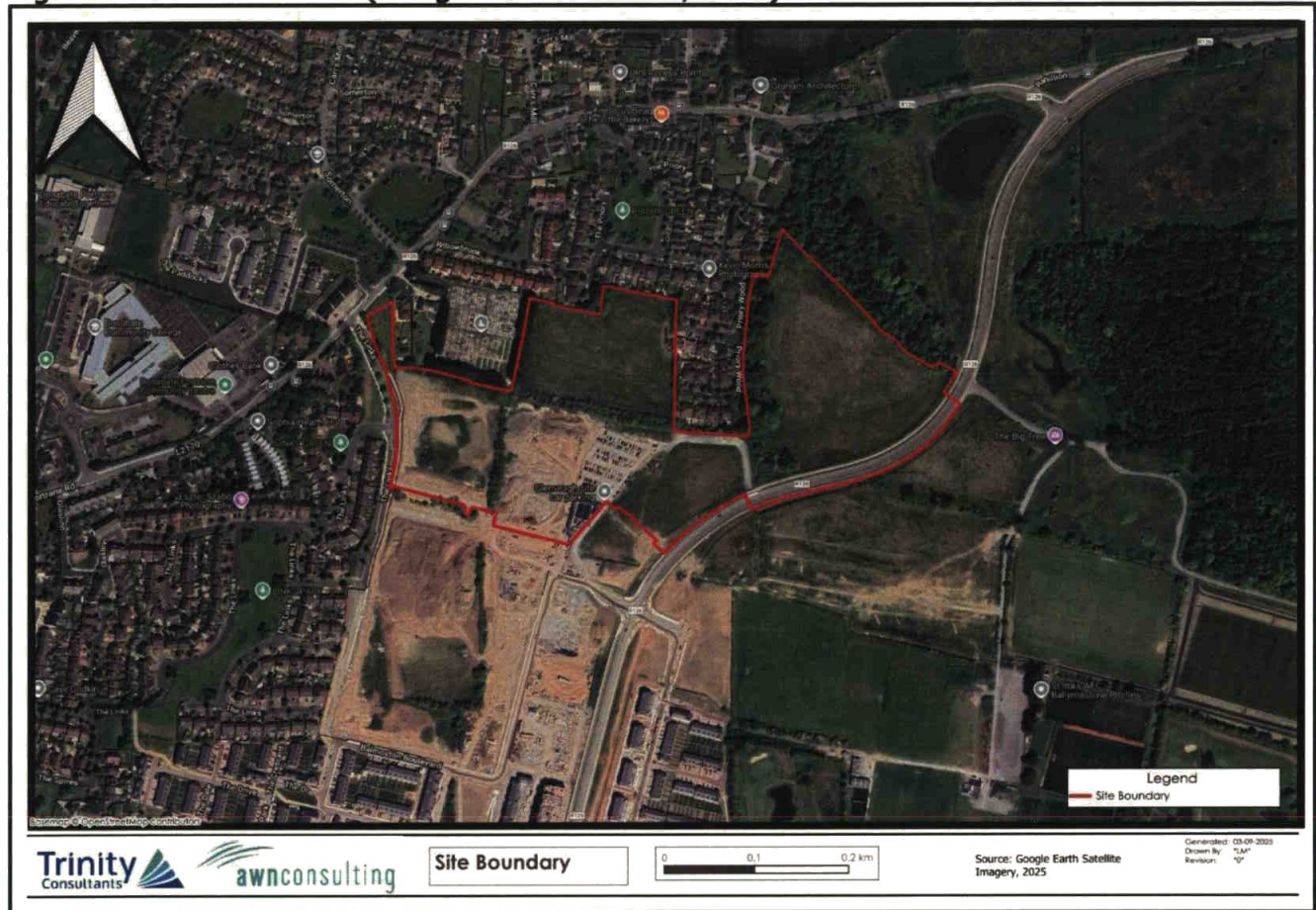
The site is bounded to the east by the recently constructed Donabate Distributor Road (DDR) and further east by the permitted (not yet constructed) FCC recreational hub to the east. Donabate Golf Club and St. Ita's Demesne are also located further to the east of the subject site, situated on the eastern side of the DDR route. The site is bound to the west by The Links residential development. and the site is bounded to the north by the Cemetery (Donabate Burial Ground) and residential estate developments, namely Willowbrook and The Priory. The Ballymastone Masterplan (Phase 1 and 2) occupies land directly/immediately south of the site Phase 1 and 2 of the development are currently under construction to the south of the proposed site (Phase 1 - FCC Ref. LRD0008/S3 & ABP Ref. 315288; Phase 2 - FCC Ref. LRD0039/S3 & ABP Ref. 320885). Further developments in the vicinity of the proposed site are located south of Phase 1 which are mainly large-scale residential developments. An underground wastewater pump station (F19A/0243/ABP-307657-20) has been constructed south of the Phase 1 development.

The lands are within the jurisdiction of Fingal County Council's Development Plan, 2023 – 2029. They are primarily zoned 'RA', Residential Area, to *'provide for new residential communities subject to the provision of the necessary social and physical infrastructure'*. The Ballymastone area is one of the main development areas within the Donabate Local Area Plan 2016 (as extended). Phase 1 of the overall development is currently under construction. Phase 3 of the development utilises infrastructure that is being constructed as part of Ballymastone Phase 1 permitted under FCC Reg. Ref. LRD0008/S3 & ABP Ref. 315288 and Phase 2 also permitted by An Coimisiún Pleanála (FCC Ref. LRD0039/S3 & ABP Ref. 320885).

'In summary, the proposed development will consist of the construction of a residential development, which represents Phase 3 of the wider development of the Ballymastone Lands, ranging in height from 2- to 6-storeys, to accommodate 398 no. residential dwellings (including a mix of apartments, duplexes and houses), private amenity space, a crèche (c. 646sq.m), and a community space (c. 100sq.m). The site will accommodate 316 no. car parking spaces in total (comprised of 288 no. residential spaces, 10 no. spaces for the proposed crèche/community space, 6 no. EV charging spaces including accessible spaces, and 12 no. spaces ducted for future provision), 1,619 total no. bicycle parking spaces, new pedestrian/cycle links, road improvements, storage, services (including water, wastewater, electricity and telecommunications)

and plant areas. Landscaping will include communal amenity areas, SuDS features, and significant public open space (c. 15.3% of the net site) including outdoor exercise and play equipment.'

Figure 1-1. Site Location (Google Earth Satellite, 2025)



In relation to Soil, Geology, hydrogeology and Hydrology the relevant characteristics are as follows:

- Increase in hardstanding
- Provision of attenuation storage system tanks and associated infrastructure as part of the surface water systems along with installation of bypass hydrocarbon / petrol interceptors.
- All ancillary site development, landscaping and construction works to facilitate foul, water and service network connections.

The potential impacts on the receiving water environment considered are:

- ▶ The management of surface water run-off and accidental leaks during construction phase.
- ▶ Connection to stormwater sewer during operation. Due to the nature of the proposed development, it has been assumed that there will be no bulk oil storage during the operational phase. The development does not require any groundwater abstraction or any long term or significant dewatering

1.2 Objective of the Report

The scope of this desktop review is to assess the potential for any likely significant impacts on receiving waters and protected areas during construction or post development once operational/occupied, in the absence of taking account of any measures intended to avoid or reduce harmful effects of the proposed project (i.e. standard control measures).

In particular, this review considers the likely impact of construction and operation impacts (construction run-off and domestic sewage) from the proposed development on water quality and overall water body status within the Rogerstown Estuary transitional waterbody (where the relevant European Sites are located), including bathing water locations. The assessment relies on information regarding construction and design provided by DBFL Consulting Engineers, as follows:

- ▶ Infrastructure Design Report, Ballymastone, Donabate Phase 3, DBFL Consulting Engineers, 2025.
- ▶ Preliminary Construction Environmental Management Plan, Ballymastone Phase 3, DBFL Consulting Engineers, 2025.
- ▶ Site Specific Flood Risk Assessment, Ballymastone Phase 3, DBFL Consulting Engineers, 2025.
- ▶ Ground Investigation Report (Ground Investigations Ireland "GII", July 2022).

This report was prepared by Luke Maguire Environmental Consultant and Geoscientist (BSc) at AWN Consulting and Marcelo Allende (BSc, BEng) Principal Hydrological Consultant at AWN Consulting.

Luke Maguire; is an Environmental Consultant at AWN with over 4 years of experience in Environmental Consulting and water resources. Luke holds a B.Sc. in Geoscience (Geology, Hydrology, Geochemistry, Geophysics, Climate and Environmental studies) from Trinity College University of Dublin and has worked on a range of developments including pharmaceutical plants, medical device facilities, ICT facilities and energy projects. Luke has experience in contaminated soil sampling and analysis, basement impact assessments, bulk excavations and largescale dewatering processes. Additionally, Luke has gained experience in Environmental Impact Assessment Reporting (EIAR), Hydrological Risk Assessment, Flood Risk Assessments (Stage 1 & 2) and WFD Assessment Reporting and has worked in multiple Environmental monitoring disciplines such as Chemical Wastewater, Ground Gas, Surface Water, and Groundwater Monitoring at numerous sites across Dublin.

Marcelo Allende is a Principal Environmental Consultant (Hydrologist) with AWN Consulting with over 20 years of experience in water resources technical studies, conceptual and numerical hydrological/hydrogeological modelling and environmental consultancy. Marcelo holds a degree in Water Resource Civil Engineering (BEng, Hons) from the University of Chile and a Bachelor of Science in Engineering (BSc, Hons). He has worked on a wide of range of projects including multi-aspect environmental investigations, geo-environmental impact assessments, surface and groundwater resource management, hydrological and hydrogeological conceptual and numerical modelling, strategic and site specific flood risk assessments (Stage 1,2 and 3), Due Diligence reporting, baselines studies, soils, surface water and groundwater monitoring and field sampling programmes on a variety of brownfield and greenfield sites throughout Ireland as well as overseas in Chile, Argentina, Peru and Panama. He also has detailed knowledge of environmental guidance, legislation, regulations & standards and expertise in GIS (expert level) and MATTE studies at COMAH establishments. He is currently a member of the International Association of Hydrogeologists (IAH, Irish Group) and a member of Engineers Ireland (MIEI).

1.3 Hydrological Setting

The subject site is located within the former Eastern River Basin District (ERBD, now the Irish River Basin District), as defined under the European Communities Directive 2000/60/EC, establishing a framework for community action in the field of water policy – this is commonly known as the Water Framework Directive (WFD).

According to EPA Maps, the proposed development site lies within the Nanny-Delvin Catchment (Catchment ID: 08) and the Ballough Stream sub-catchment (Ballough [Stream]_SC_10 WFD Sub-Catchment). Figure 2-1 presents the regional drainage sub catchments with the site identified with red boundary.

The topography of the site is relatively flat/level, characterized by minor localized undulations throughout the site, with a high point located at the elevated central eastern portion of the site adjacent

to the DDR from where it falls to the North. A network of hedgerows and drainage ditches are located throughout the site. The recently constructed Donabate Distributor Road (DDR) lies immediately east, forming the eastern boundary of the site. A network of hedgerows and drainage ditches are located throughout the site.

The site is characterized as greenfield grassland and hedgerow, therefore at present drainage predominantly involves overland flow to onsite drainage ditches which traverse the site, coupled with drainage to ground whereby surface water and rainfall, is generally percolated to ground through the site via infiltration to grass and soil under the influence of gravity.

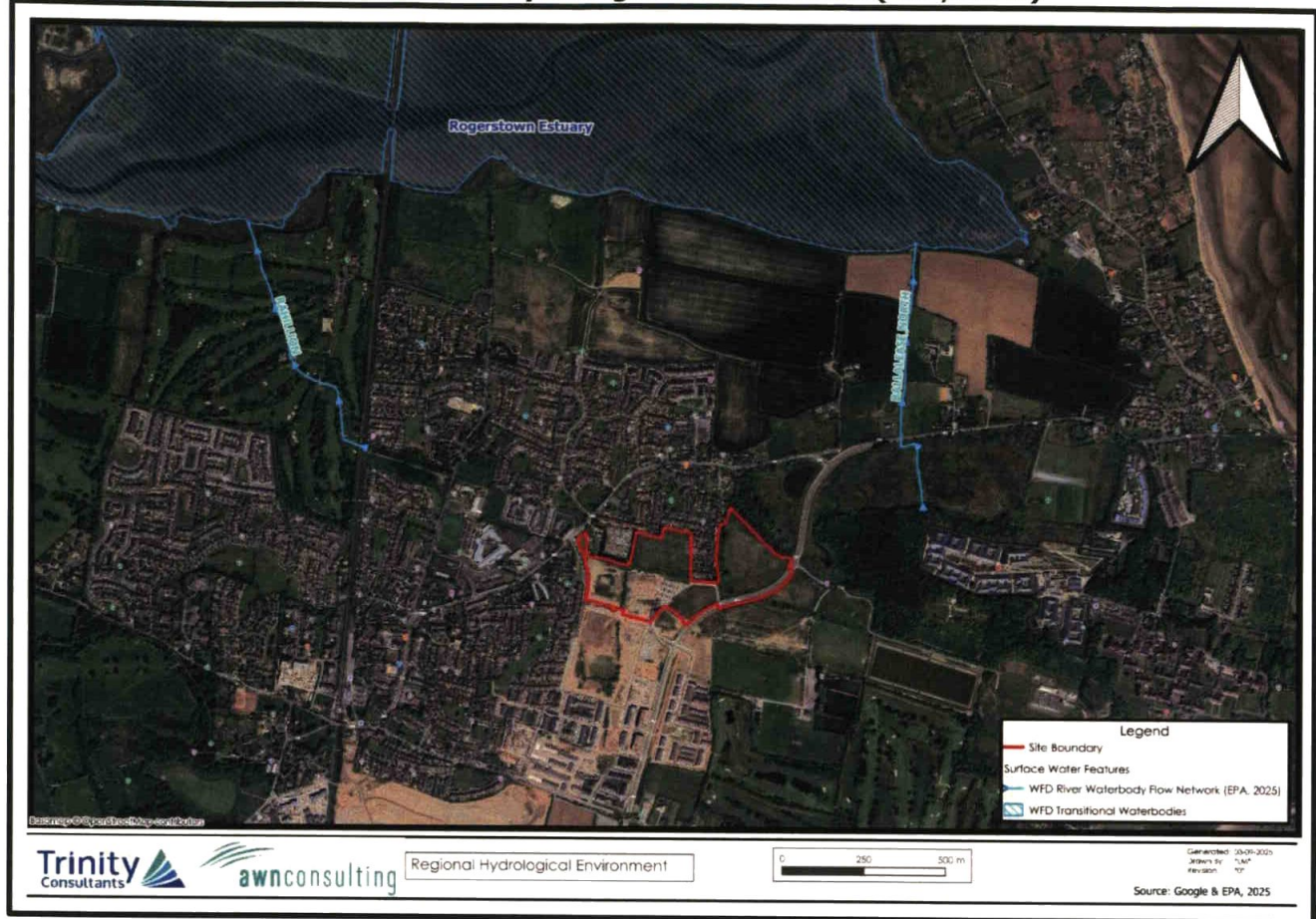
Historical mapping dated from 1829 to the early 1900s were examined for any indications of other hydrological features or watercourses in the immediate vicinity of the site. The historical maps do not depict any springs (rise) located within or traversing the site or in close proximity to the agricultural plots which occupied the region.

The current EPA watercourse mapping does not depict/include any existing streams or river watercourses within the subject site boundaries, and a review of the historical mapping records provided within the GeoHive website do not indicate any notable watercourses within the site. According to the EPA river waterbody mapping database the nearest river waterbodies to the site are the Rahillion Stream which resides c. 705m to the west / north-west of the site and the Ballalease North which is located c. 440m to the north-east of the site at the point of closest proximity. Both watercourses are hydrologically connected to the Rogerstown Estuary transitional waterbody, which hosts Natura 2000 sites (Rogerstown Estuary SAC/SPA, 0.85 km north of the site) – See Figure 2-2 below.

Currently, the site is drained by a network of drainage ditches which traverses the site and convey flow into the Beaverstown Stream (EPA name "Rahillion", WFD name "Ballyboghil_010" EPA Code:08R23) which flows c. 705m to the north-west of the site and the Portrane Stream (Portrane Canal) (EPA name: "Ballalease North", WFD name: "Ballyboghil_010", EPA code:08B45) catchment to c. 440m northeast of the site. (Figure 2-2 below). Both of these catchments then discharge to the Rogerstown Estuary to the north of the site (c. 1km).

The site has a hydrological linkage / connection to the Rogerstown Estuary transitional waterbody (EU Code:IE_EA_050_0100) via the existing drainage ditches which traverse the site and convey flow to the Beaverstown stream and Portrane stream (Portrane Canal) which subsequently discharge to the Rogerstown Estuary.

Figure 1-2. Site Location and Local Hydrological Environment (EPA, 2025)



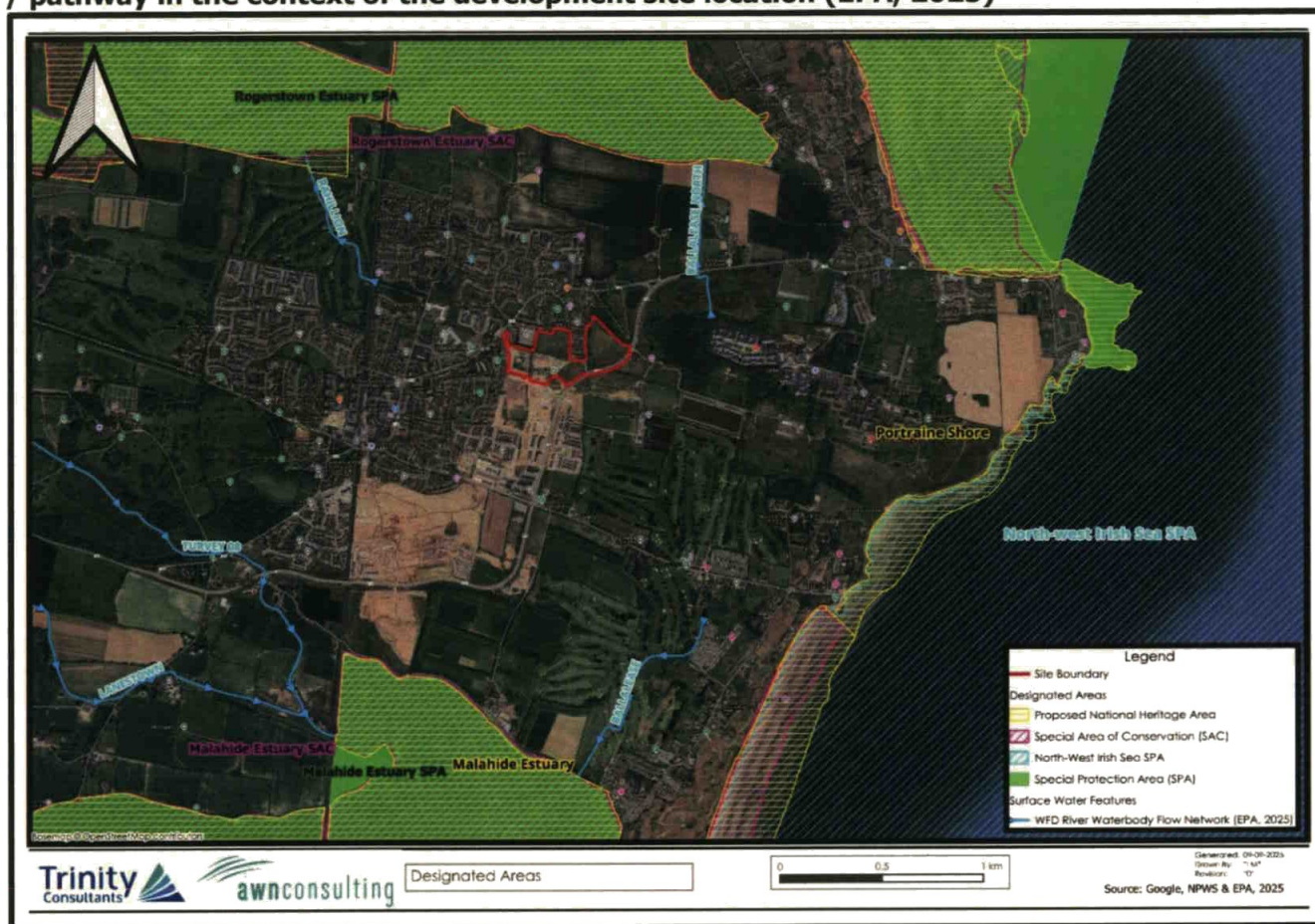
The NPWS (2025) on-line database have been reviewed to determine the location of areas of conservation within proximity to the proposed development site. According to the NPWS (2025) on-line database there are no special protected areas (SPA) or special areas of conservation (SAC) on or within the boundary of the proposed development site or its immediate vicinity. The lands in which the development is located have no formal designations. The development site is not located within or directly adjacent to any Natura 2000 site. No bodies of standing water or habitats which could be described as wetlands exist onsite. Furthermore, there are no Natural Heritage Areas (NHA), or proposed Natural Heritage Areas (pNHA) established under the Wildlife Acts, 1976 and 2000 (as amended). The lands in which the development is located have no formal designations (Refer to Figure 1-3 below).

The relevant (and closest) and European listed conservation sites are as follows (distances listed represent the linear distance at the point of closest proximity);

- ▶ Rogerstown Estuary SPA (Site Code: 004015) c. 0.85 km North of the site;
- ▶ Rogerstown Estuary SAC (Site Code: 000208) c. 0.85 km North of the site;
- ▶ Rogerstown Estuary pNHA (Site Code 000208), c. 0.85 km North of the site;
- ▶ North-West Irish Sea SPA (Site Code:004236) c. 1.7 km east of the site;

Figure 1-3 below presents the location of these protected areas in the context of the Site and it is noted that based on the significant distance to these receptors, coupled with the large dilution factor along the hydrological and hydrogeological pathway, there is no likelihood of an accidental release of hydrocarbons or silt from the proposed development resulting in any change in surface water quality contributing to these habitats.

Figure 1-3. Designated Natura 2000 Conservation / Protection Sites and hydrological linkage / pathway in the context of the development site location (EPA, 2025)



1.4 Description of Current and Proposed Drainage

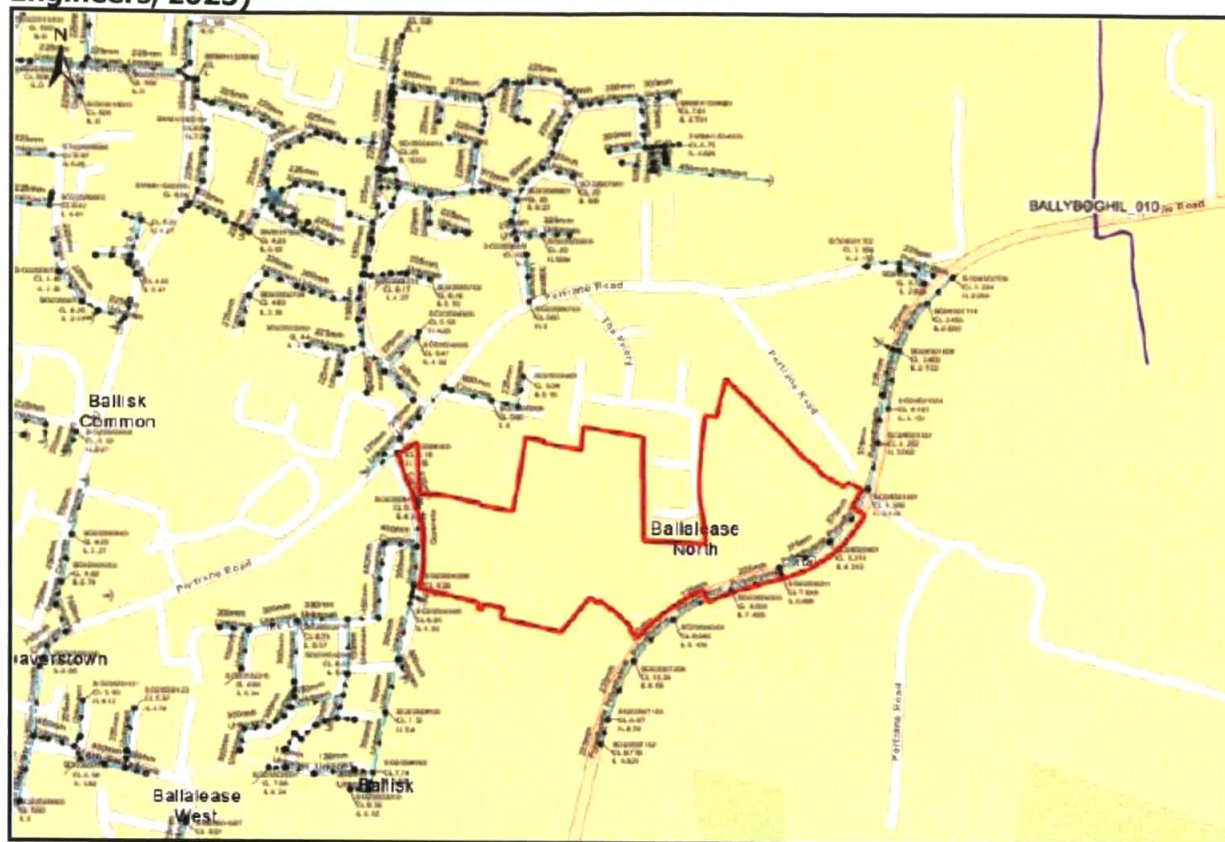
Existing Surface Water Drainage

The site is characterized as greenfield grassland and hedgerow, therefore at present drainage predominantly involves overland flow to onsite drainage ditches which traverse the site, coupled with drainage to ground whereby surface water and rainfall, is generally percolated to ground through the site via infiltration to grass and soil under the influence of gravity. As mentioned above, a network of hedgerows and drainage ditches are located throughout the site, which direct and convey flow downstream to the Beaverstown stream ("Ballyboghil_010") and the Portrane stream (Portrane Canal) ("Ballalease North"), both of which discharge to the Rogerstown Estuary transitional waterbody, which in turn, ultimately outfalls to the Northwestern Irish Sea coastal waterbody

Surface water runoff from the existing DDR is collected via road gullies into existing carrier drains running along the road and transferred into 5No. attenuation ponds along the length of the DDR. The Ballymastone Phase 2 lands are located within parts of catchments 4 and 5. Catchment 4 discharges to the existing 1350mm surface water culvert to the northwest of the site. This in turn discharges to Rogerstown Estuary to the north. Catchment 5 discharges to the existing ditches (following attenuation) which eventually flow to the Portrane Canal and then onto the Rogerstown Estuary to the north.

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Figure 1-4. Existing Surface Water Systems and Watercourses (Source: DBFL Consulting Engineers, 2025)



Proposed Surface Water Drainage

Construction Phase

The CEMP and this EIAR contains and is informed by best practice measures and protocols to be implemented during the construction phase of the proposed development to avoid / minimise environmental impact. There is no likely discharge from the site (without settlement and treatment) as most drainage is directed to the permitted attenuation pond and interceptor installed during the Phase 1 & Phase 2 development. Measures shall be implemented to capture and treat sediment laden surface water runoff within additional sediment retention ponds where waters are not directed to the Phase 1 & 2 permitted drainage design infrastructure i.e. attenuation ponds.

Operational Phase

Surface water runoff from the development will be attenuated to greenfield runoff rates (Q_{bar}) in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS).

The attenuation systems are designed to accommodate the 100-year critical storm event plus an additional 20% allowance for climate change and discharged into the Rogertstown Estuary at the equivalent Q_{bar} rate. Attenuation storage is provided through a combination of above ground and underground attenuation systems. A balance of underground and overground storage is required considering the urban nature of the development and density / open space requirements. SUDS features such as green roofs and the inclusions of permeable paving, tree pits and swales will provide a surface water treatment train and promote source control throughout the development while also providing attenuation storage at source. In some locations the proposed layout has also managed to include over edge road drainage with surface water flowing directly under drained swales providing treatment and storage at source.

The Phase 3 site (this application area) crosses 2 surface water catchments included within the overall masterplan area. The overall masterplan area was divided into 5 catchments to best utilise the available surface water discharge points. Parts of catchment 4 and 5 are within the Phase 3 site boundary:

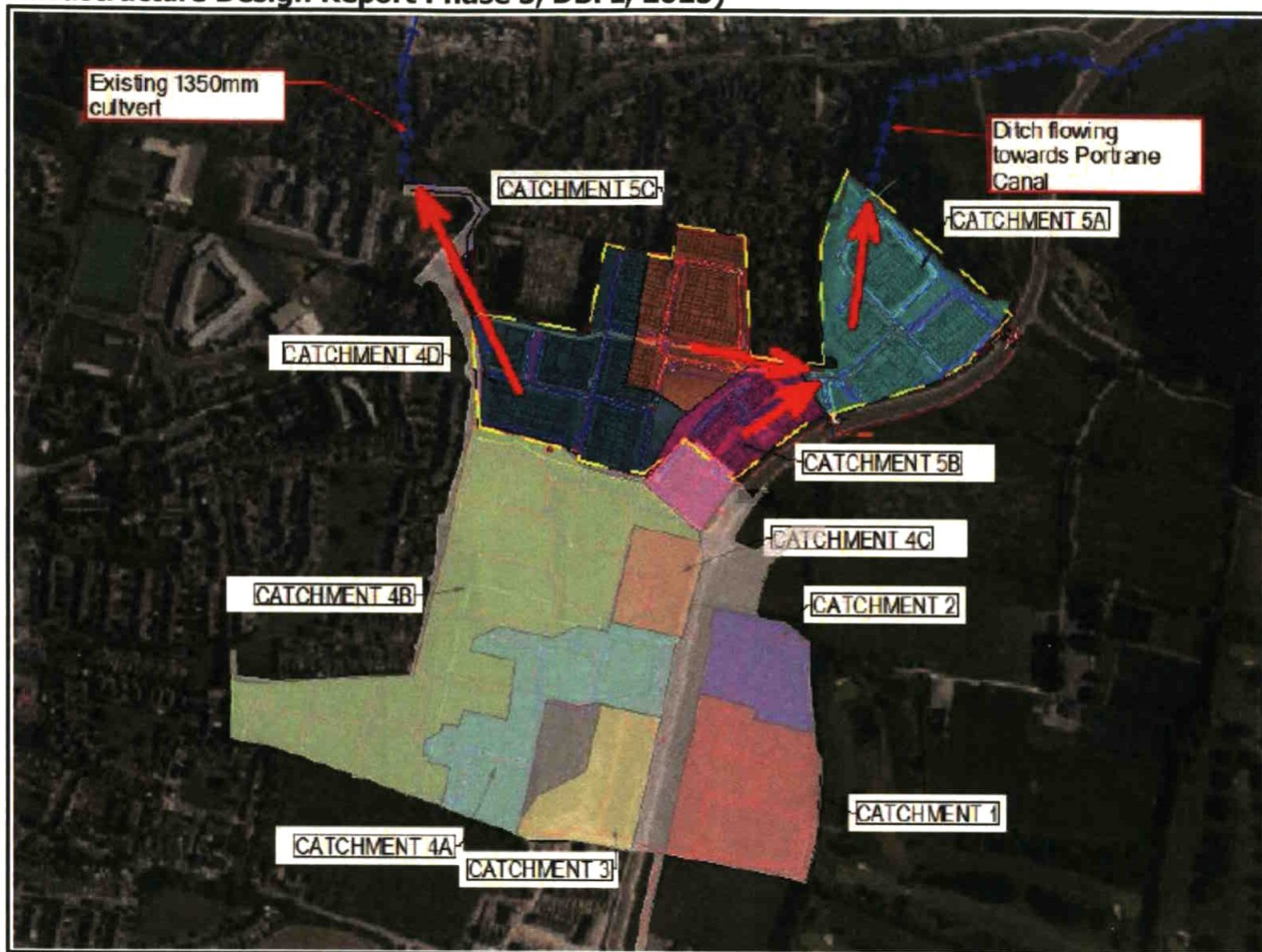
- Catchment 4 is separated into sub catchments and discharges to the existing 1350mm surface water culvert to the northwest of the site which eventually discharges to the Rogerstown Estuary to the north. Utilising the 1350mm surface water culvert for the Ballymastone masterplan area is in line with the Donabate LAP.
- Catchment 5 discharge to the existing ditches which eventually flow to the Portrane Canal and then onto the Rogerstown Estuary to the north.

A lot of the drainage infrastructure required for Phase 3 was constructed as part of Phase 1 of the works permitted under FCC Reg. Ref. LRD0008/S3, specifically the connection to the 1350mm culvert and the majority of the attenuation associated with Catchment 4. Similarly, a lot of the drainage infrastructure required for Catchment 5 will be constructed as part of Phase 2 of the works permitted under FCC Reg. Ref. LRD0039/S3, specifically the final outfall to an existing ditch to the north-west and the majority of the attenuation associated with Catchment 5. Refer to Figure 1-5 below.

This drainage strategy has been discussed in principle with Fingal County Council's drainage department throughout the planning for the other 2 phases. Due to existing site levels some areas to the south require levels to be raised to provide cover to the drainage network. Attenuation locations avoid the raised areas and generally the underside of attenuations are located on or below existing ground thereby maximising any existing infiltration properties. We note that SUDS / Nature-based SUDS are maximised throughout the scheme but that an element of underground storage is unavoidable due to space restrictions due to the extent of available open space, existing hedgerows & ditches limiting available space etc. It is noted that at the time writing that the majority of surface water drainage, SUDS/NBS and attenuation in Phase 1 & 2, which is currently under construction (or some is now in place) as per the approved LRD permitted development under Phase 1 - FCC Ref. LRD0008/S3 & ABP Ref. 315288 and Phase 2 - FCC Ref. LRD0039/S3 & ABP Ref. 320885. This drainage strategy has been discussed in principle with Fingal County Council's drainage department through the Section 247 Pre-Planning and Stage 2 processes.

Refer to the Infrastructure Design Report (Ballymastone, Donabate Phase 3, DBFL Consulting Engineers, 2025) for further details.

Figure 1-5. Proposed Masterplan Surface Water Catchment Plan (Source: Figure 6, Infrastructure Design Report Phase 3, DBFL, 2025)



The design has taken account of the potential impacts of the development on surface water quality; measures have been incorporated in the design to mitigate these potential impacts.

In accordance with the requirements of Fingal County Council, the proposed surface water drainage system designed for this development includes / incorporates a number (multitude) of Sustainable Urban Drainage Systems (SuDS) measures which serve a dual purpose in managing stormwater and will be incorporated to reduce run-off volumes and improve run-off water quality. These measures by design ensure the stormwater leaving the site is to be attenuated and treated within the new development site boundary to ensure suitable quality, before discharging to the existing local drainage network which subsequently outfalls to Rogerstown Estuary. SuDS are drainage systems that are environmentally beneficial, causing minimal or no long-term detrimental damage. The SuDS design is set out in the Infrastructure Design Report (DBFL Consulting Engineers, 2025) and uses green roofs, underground attenuation system, detention/infiltration basins, vortex flow control device (Hydrobrake or equivalent), bio-swales with filter drains, infiltration blankets, rain gardens, tree pits, permeable paving (porous surfacing), an oil separator, and petrol / hydrocarbon interceptors (or equivalent).

The purpose of the SuDS design is to:

- Treat runoff and remove pollutants to improve quality;
- Restrict outflow and control quantity;
- Increase amenity value.

The layout of the proposed surface water drainage network is shown on the DBFL Consulting Engineers Drawing Set (2025) included with this Application. It is proposed to separate the surface water and wastewater drainage networks, which will serve the proposed development, and provide independent connections to the local public surface water and wastewater sewer networks respectively. Waste water will be discharged in accordance with the UÉ licence requirements.

The design has taken account of the potential impacts of the development on surface water flow; measures have been incorporated in the design to mitigate these potential impacts. As set out in the Infrastructure Design Report (DBFL Consulting Engineers, 2025), flow restriction is achieved by means of a vortex flow control device (Hydrobrake or equivalent) installed at the outfall of the surface water catchment within the development, with the excess storm water stored on site for the duration of the storm periods of up to 1 in 100 years.

Surface water runoff from the proposed Phase 3 development and the wider Ballymastone masterplan area will be attenuated to greenfield runoff (Q_{bar}). For the Ballymastone masterplan area this is calculated as 55.04 l/s using the Institute of Hydrology equation, as recommended in the Greater Dublin Strategic Drainage Study (GSDSDS) based on an area of 11.28 Ha. This area is within the catchment of the new drainage networks and excludes open space areas not within new drainage networks. The overall catchment and a catchment plan strategy is shown on drawing number 20003-DBF-XXXX-XX-DR-C01-133015

The attenuation tanks shall be designed for 1-in 100-year storm event plus 20% climate change factor without any overland flooding. The attenuation tank shall be provided with flow control device to restrict the storm water run-off to greenfield rate.

The proposed development includes a new surface water network which will reduce/mitigate any pluvial flood risk to the site in line with SuDS measures. The surface water network, attenuation storage and site levels are designed to accommodate a 100-year return period storm event and includes climate change provision. Lowest building Floor levels of houses are set above the 100-year flood levels by a minimum of 0.5m above the top water level in the corresponding attenuation facility in accordance with recommended minimum freeboards for protection. All footpaths are falling away from houses. For storms events, exceeding a 100-year return period, the development has been designed to provide overland flood routes along the various development roads towards green areas or drainage outfalls, where possible. (Refer to the 'Site Specific flood Risk Assessment' (SSFRA) by DBFL Consulting Engineers, which is included as a separate report).

Existing Foul / Wastewater Drainage

The site has no existing foul loading and no existing foul / wastewater connections to the public sewer or nearby Portrane Rush Lusk Wastewater Treatment Plant as it is predominantly greenfield.

There is an existing 300mm foul sewer running through the recently constructed DDR. During the construction of Phase 2 of the development the proposed foul infrastructure leading towards and from the Foul Pump Station in the north-east of the site will be put in place. The majority of Phase 3 will be served by this infrastructure. Refer to the Infrastructure Design Report (Ballymastone, Donabate Phase 3, DBFL Consulting Engineers, 2025) for further details.

Proposed Foul / Wastewater Drainage

Strict separation of surface water and wastewater will be implemented within the development. The proposed development will be fully serviced with separate foul and stormwater sewers which will have adequate capacity for the facility and discharge limits as required by Irish Water licencing requirements.

The proposed foul drainage system will have 2 different connection points to existing networks. There is a new Irish Water Foul pumping station recently constructed to the south of the development which will

serve the southern side of the proposed Phase 3 development. The pump station is fed by a gravity foul sewer falling North to South along the DDR. A rising main takes flow from the pump station to the northern end of the DDR where it is discharged to another gravity sewer. Due to site levels and the invert levels of the gravity sewer in the DDR, the existing gravity sewer in the DDR is only suitable to serve a small portion of the Phase 3 development located in the south-west of this phase.

The vast majority of the Phase 3 development will discharge to a new proposed Foul Pump Station which is to be located in the north-east of the masterplan site. Due to the level of the existing gravity foul lines within the DDR it was not feasible to connect a lot of the site to these via gravity sewers without unrealistic amounts of build-up of the existing ground levels. The north-east corner of the site was chosen as the most feasible location for the pump station as the ground levels are lowest here so the depth of the pump station could be minimised. This pump station will serve the majority of both phases 2 & 3 of the development. The rising main from the pump station will discharge to the existing gravity sewer flowing North within the DDR.

The foul discharge from the site will join the public sewer and will be treated at the Portrane Rush Lusk Wastewater Treatment Plant (WWTP EPA Licence: D0114-02) prior to subsequent discharge the Northwestern Irish Sea through a primary discharge point located east of St. Ita's Hospital. This WWTP is required to operate under and in compliance with the associated EPA licence and meet environmental legislative requirements as set out in its licence. There is no 'direct' pathway for foul sewage to any receiving water body (as identified above). There will also be indirect hydrological connection to Northwestern Irish Sea via/through the foul water discharge which will be treated off site at Portrane Rush Lusk Wastewater Treatment Plant (WWTP). There is no potential for water quality exceeding SI threshold concentrations to be exceeded at the Northwestern Irish Sea coastal waterbody (and corresponding North-West Irish Sea SPA Natura 2000 conservation site).

A full, detailed foul water management strategy for the proposed development is included in the Infrastructure Design Report by DBFL Consulting Engineers, submitted under separate cover as part of the planning application.

Flood Risk

A Flood Risk Assessment (FRA) was carried out by DBFL Consulting Engineers in 2025 for the proposed development. The proposed development site is located entirely within Flood Zone C i.e., the probability of flooding is low (less than 0.1% AEP or in 1 in 1000 year) for Fluvial and Coastal flooding.

According to this FRA, there is no risk anticipated for the proposed development regarding fluvial flooding on the subject site up to the 1% AEP (Annual Exceedance Probability) event.

The proposed development was concluded to have a good level of flood protection up to the 100-year return event. For pluvial floods exceeding the 100-year capacity of the drainage system then proposed flood routing design measures are recommended.

2. ASSESSMENT OF BASELINE WATER QUALITY, RIVER FLOW AND WATER BODY STATUS

A reliable Conceptual Site Model (CSM) requires an understanding of the existing hydrological and hydrogeological setting. This is described below for the proposed development site and surrounding hydrological and hydrogeological environs.

2.1 Hydrological Catchment Description

The proposed development site is located within the former ERBD (now the Irish River Basin District), as defined under the European Communities Directive 2000/60/EC, establishing a framework for community action in the field of water policy – this is commonly known as the Water Framework Directive (WFD). The proposed development site is located in the Irish River Basin District (IRBD).

As previously mentioned, the proposed development site lies within the Nanny-Delvin Catchment (Catchment ID: 08) and the Ballough Stream sub-catchment (Ballough[Stream]_SC_10 WFD Sub-Catchment).

This WFD Screening has identified 2 no. WFD surface water bodies which need to be considered: Ballyboghil_010 River waterbody (European Code: IE_EA_08B012200), and Rogerstown Estuary (European Code: IE_EA_050_0100).

Currently, the site is drained by a network of drainage ditches which traverses the site and feed into the Beaverstown Stream (EPA name "Rahillion", WFD name "Ballyboghil_010" EPA Code:08R23) which flows c. 705m to the north-west of the site and the Portrane Stream (Portrane Canal) (EPA name: "Ballalease North", WFD name: "Ballyboghil_010", EPA code:08B45) catchment to c. 440m northeast of the site. Both of these catchments then discharge to the Rogerstown Estuary to the north of the site (c. 1km).

The site has a hydrological linkage / connection to the Rogerstown Estuary transitional waterbody (EU Code:IE_EA_050_0100) via the existing drainage ditches which traverse the site and convey flow to the Beaverstown stream and Portrane Stream (Portrane Canal) which subsequently discharge to the Rogerstown Estuary.

The Ballalease North (Portrane stream) and Beaverstown Stream (Rahillion Stream) both of which belong to the BALLYBOGHIL_010 river waterbody (European Code: IE_EA_08B012200). The most recent WFD River (surface) water status (2016-2021) for the BALLYBOGHIL_010 is 'Poor' with a current WFD risk score (WFD 3rd risk cycle) of 'At risk of not achieving good status'. This rating and the main pressures identified on the BALLYBOGHIL_010 waterbody is attributed to poor ecological and biological status or potential, particularly invertebrate status or potential (Catchments.ie, 2025). Additionally, the BALLYBOGHIL_010 received 'Moderate' (as opposed to 'Good') status on 'Supporting Chemistry Conditions' which is attributed to 'Pass' status in oxygenation conditions, 'Fail' status in Dissolved Oxygen (Saturation %), 'Pass' status in Acidification Conditions (pH) and 'Moderate' Status in Nutrient Conditions which incorporates Nitrogen (Nitrate) Conditions and Phosphorous (Orthophosphate) Conditions (Catchments.ie, 2025).

The Rogerstown Estuary transitional waterbody (European Code: IE_EA_050_0100) is currently listed as 'At risk of not achieving good status' (WFD 3rd Cycle). The latest Rogerstown Estuary WFD status is 'Poor' (2016-2021). This rating and the main pressures identified on the Rogerstown Estuary are attributed to poor ecological and biological status or potential, in particular 'Poor' Aquatic Flora or Potential, which has been determined by 'Moderate' Macroalgae Status or Potential and 'Poor' Angiosperm Status or Potential. Additionally, the Rogerstown Estuary received 'Moderate' (as opposed to 'Good') status in relation to Hydromorphological Conditions which is determined by Supporting Chemistry Conditions such as oxygenation conditions (dissolved oxygen saturation %) and Nutrient Conditions, particularly phosphorous conditions (Catchments.ie, 2025).

According to the Ballough[Stream]_SC_010 (Code: 08_6) Subcatchment Assessment report (WFD 2nd Cycle, 2020) the main pressures associated with the BALLYBOGHIL_010 and Rogerstown Estuary(downstream/downgradient) include agriculture.

The local hydrological environment also includes areas of natural resources that relate to population and human health that may be impacted by the proposed development, this includes economic resources, recreational and bathing waters, and drinking water resources.

A review of Environmental Sensitivity Mapping online maps that includes the Register of Protected Areas (RPA) under the Water Framework Directive (WFD) has shown that there are no Recreational Waters , Bathing Waterbodies, or Surface Water Drinking RPA, located downstream in the Beaverstown stream (Rahillion/Ballyboghil_010), Portrane stream (Ballalease North/Ballyboghil_010), or Rogerstown Estuary. The nearest bathing waterbody is Portrane, the Brook Beach (BW ID: IEEABWC020_0000_0200) located c. 1.7 km east of the site and has a hydrological connection through the Rogerstown Estuary. The current bathing water quality classification for this site is 'Sufficient Water Quality' (2024).

It should be noted that the bathing status has no direct relevance to the water quality status of the Natura 2000 sites due to rapid mixing and dilution resulting in no measurable change in water quality within the overall water body.

A review of the Environmental Protection Agency's (EPA) online mapping, which includes the Register of Protected Areas (RPA) established under the Water Framework Directive (WFD), indicates Ballough[Stream]_SC_010 (Code: 08_6) and the two nearby tributaries, namely the Beaverstown stream (Rahillion/Ballyboghil_010) and Portrane stream (Ballalease North/Ballyboghil_010) are not located within a designated Surface Water Drinking RPA. This classification of drinking water river lines has been delineated in accordance with the European Communities (Drinking Water) (No. 2) Regulations 2007 (SI No. 278/2007). This regulatory framework aims to ensure the protection of water resources utilised for human consumption, thus safeguarding public health and the environment.

2.2 Aquifer Description & Superficial Deposits

2.2.1 Regional Bedrock Geology

Inspection of the available GSI (2025) records and online mapping database shows that the bedrock geology of the site and the surrounding area is dominated by rocks from the Ordovician to the upper Devonian age. The western and central parts of the site are located over calcareous shales, siltstones and sandstones, and occasional thin limestones at its base referred to as the Malahide Formation (rock unit code: CDMALH). The east/northeastern portion of the site is underlain by the Portrane Volcanic Formation (rock unit code: PORV) which comprises lithologies of Andesite, tuff, pebbly mudstone and shale.

Land directly to the south of the site overlies red coarse-grained lithic sandstone and quartz pebble conglomerate referred to as the Donabate Formation (rock unit code: CDDONB).

According to the GSI (2025), the regional area is highly geologically variable. In terms of the structural geology of the area, the GSI database (100K structural database) indicates multiple structural features (faults & unconformities) in the wider region of the site, with one fault line traversing the eastern portion of the site. This fault trends in a Northwest-Southeast direction / orientation.

According to the GSI Karst database there is no evidence of karstification (bedrock prone to dissolution leading to underground drainage systems such as caves and large crevices) in this area. This would not be expected in this type of Limestone. Given the lack of karstification in this region, there is no known underground traced flow paths.

During the ground investigations carried out by GII, only one borehole (BH19, western portion of the site) encountered bedrock which was found at a depth of 10.50mbgl (BH19) in Strong massive reddish grey

fine grain lithicarkose sandstone with quartz cementations and veining, overlying a strong massive reddish grey fine to coarse grain lithic arkose conglomerate with quartz cementation and veining, was recovered from the coring samples. This is typical of the Donabate Formation. No Bedrock was encountered in the eastern portion of the site down to a maximum depth of 14.7mbg. Aquifers are generally classified as rocks or other matrices that contain sufficient void spaces and which are permeable enough to allow water to flow through them in significant quantities.

A review of the GSI online data base confirmed that no geological heritage site has been identified in the immediate vicinity of the proposed development site. Portrane Shore (Site Code: DF001) and Malahide Point (Site Code: DF020) are the closest audited sites to the proposed development, which are located approximately 1.5km and 1.6km to the east and southeast of the site, respectively, at the point of closest proximity. The proposed development will have no interaction with locations due to the separation distance and low potential for a source-pathway-receptor linkage.

2.2.2 Soil & Subsoil

The majority of the site exists currently as portions of grassland fields / plots characterised by a previous (historic) agricultural function, which consisted of arable agricultural activities. Historical Ordnance Survey (OSi) maps were examined. OSi maps were available from 1829 (the historic 6" maps) and 1900 from the historic 25" maps. The historic maps indicate that the subject site was greenfield grassland up to the present day with land use being characterised by a previous agricultural function. No evidence was noted to indicate quarrying etc have been undertaken on the subject site.

The Teagasc online mapping (2025) for the site indicates that the soils underlying the site and the surrounding area mainly comprise of BminDW, which is a deep well drained (mainly basic) mineral soil.

The regional overburden deposits are reflective of the Quaternary geological period that extends from around 1.5 million years ago to the present day. This can be further sub-divided into the Pleistocene Epoch, which covers the Ice Age period, and which extended up to 10,000 years ago and the Holocene Epoch, which extends from that time to the present day.

The GSI (2025) mapping database of the Quaternary Sediments / Subsoils in the vicinity of the site indicates one (1) no. principal subsoil type. The predominant subsoil type present across the site is 'Irish Sea Till derived from Lower Palaeozoic sandstones and shales (IrSTLPSS)'. This till is made up of glacial CLAYs which form a cohesive, low permeability subsoil. According to the GSI (2025) the site is not underlain by any localised zones indicative of 'Bedrock outcrop or near surface subcrop'.

Ground investigations carried out by GII indicates that the subsoil material comprises soil derived from mainly calcareous parent material that includes surface water gleys/groundwater gleys and soil derived from mainly calcareous parent materials that includes grey, brown podzolics and brown earths. A minor region in the site is covered by soil that is mainly derived from calcareous parent materials that includes peaty gleys.

Consultation with Fingal County Council has confirmed that there are no known illegal / historic landfills within 500 m of the site.

As mentioned above, GII undertook an environmental site investigation from February to July 2022 at the subject site to establish the soil conditions. The sequence of strata encountered were consistent across the site and are generally composed of:

Topsoil: Topsoil was encountered in all the exploratory holes and was present to a maximum depth of 0.40mbgl.

Made Ground: Made ground was encountered in the eastern portion of the site (Area 3, GII Report, 2022) beneath the topsoil, present to a depth of 1.20mbgl, and was typically described as brown grey

slightly sandy slightly gravelly Clay. No Made ground deposits were encountered in the western portion of the site (Area 4).

Cohesive Deposits: Cohesive deposits were encountered beneath the made ground or topsoil and were described typically as light brown slightly sandy slightly gravelly CLAY with occasional cobbles and boulders overlying a brown mottled grey slightly sandy slightly gravelly CLAY with occasional cobbles and boulders overlying dark grey slightly sandy slightly gravelly CLAY with occasional cobbles and boulders. The secondary sand and gravel constituents varied across the site and with depth, with granular lenses occasionally present in the cohesive till matrix.

Granular Deposits:

Eastern / central portion of the site: Granular deposits were encountered within the cohesive deposits at location BH18. The Granular deposit was described as *Brown slightly gravelly slightly silty fine to coarse SAND with occasional cobbles and rare boulders.*

Western Portion of the site: Granular deposits were encountered within the cohesive deposits at location TP215 to the southwest of this portion of the site. The Granular deposit was described as *Brown grey slightly clayey sandy angular to subangular fine to coarse GRAVEL with occasional cobbles and rare boulders.*

Bedrock:

Eastern Portion of the Site: No bedrock was encountered during the Rotary Cored & Cable Percussion Borehole drilling which extended to a maximum depth of 14.7mbgl.

Western Portion of the site: The rotary core boreholes recovered Medium strong to strong reddish grey massive lithic arkose fine to medium grain CONGLOMERATE with quartz cementation and Medium strong to strong reddish grey massive lithic arkose fine to medium grain SANDSTONE with quartz cementation. This is typical of the Donabate Formation, which is noted on the geological mapping running from the southwest through to the northeast of the proposed site. The depth to rock encountered was 10.50m BGL (BH19).

In line with the use of the site for agriculture, there was no evidence of contamination noted during site investigation. Soil samples were collected throughout the trial pitting exercise that were within the proposed developments red boundary line.

Soil samples were analysed for the following parameters:

- Diesel Range Organics (DRO);
- Mineral Oil;
- Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG);
- Metals (As, Cd, Cr, Pb, Se, Cu, Ni, and Zn);
- Polychlorinated Biphenyls (PCB);
- Volatile Organic Compounds (VOC);
- Semi Volatile Organic Compounds (SVOC); and
- Waste Acceptance Criteria (WAC) for inert waste landfills in accordance with the 2002 European Landfill Directive (2002/33/EC). This suite of parameters includes the following:
 - Mineral oil;

- Polycyclic aromatic hydrocarbons (PAHs);
- Polychlorinated biphenyls (PCBs);
- BTEX compounds (benzene, toluene, ethylbenzene, and xylenes);
- and methyl tert-butyl ether (MTBE);
- Total organic carbon (TOC); Leachable component of a range of organic and inorganic parameters.

The soil quality was compared to GAC derived to be protective of human health and ecology for a residential end use, as detailed in above soil guidelines section above.

Summary of Soil Analysis

Heavy Metals

All heavy metal parameter concentrations recorded in the soil samples are below the most conservative threshold value for the LQM/CIEH for HHRA (Human Health Risk Assessment) Residential Threshold at 1% SOM.

Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG)

All parameters recorded below the laboratory's limit of detection (LOD) for all soil samples collected across the subject site. Therefore, there are no exceedances recorded when these concentrations were compared to the most conservative threshold i.e. LQM/CIEH for HHRA Residential Threshold at 1% SOM.

Polychlorinated Biphenyls (PCBs)

All parameters recorded below the laboratory's LOD for all samples collected across the subject site.

Polycyclic Aromatic Hydrocarbons (PAHs)

All parameters recorded below the laboratory's LOD for all samples collected across the subject site. Therefore, there are no exceedances recorded when these concentrations were compared to the most conservative threshold i.e. LQM/CIEH for HHRA Residential Threshold at 1% SOM.

Waste Acceptance Criteria (WAC) Analysis

All samples were analysed and compared against WAC set out by the adopted EU Council Decision 2003/33/EC. There was no fill material noted during trial pit excavations with all samples being recorded as gravel, made ground or original clay subsoil.

The WAC analysis determined that the representative samples are suitable for classification as Category A – Inert; Category B1 – Inert Landfill or Category B2 – Inert Landfill. Based on the laboratory results and parametric concentrations obtained from the site investigation, material from the sample locations would be acceptable at inert waste facilities. It should be noted that waste facilities develop facility specific criteria also and this should be considered should any soil/ material to be removed from site in the future.

Asbestos

There were no asbestos containing materials (ACM) identified in any of the trial pit or stockpile samples taken.

2.2.3 Aquifer Classification, Description & Inferred Flow Direction

The GSI has devised a system for classifying the bedrock aquifers in Ireland. The aquifer classification for bedrock depends on a number of parameters including, the area extent of the aquifer (km²), well yield (m³/d), specific capacity (m³/d/m) and groundwater throughput (mm³/d). There are three main classifications: regionally important, locally important, and poor aquifers. Where an aquifer has been classified as regionally important, it is further subdivided according to the main groundwater flow regime within it. This sub-division includes regionally important fissured aquifers (Rf) and regionally important karstified aquifers (Rk). Locally important aquifers are sub-divided into those that are generally moderately productive (Lm) and those that are generally moderately productive only in local zones (LI). Similarly, poor aquifers are classed as either generally unproductive except for local zones (PI) or generally unproductive (Pu).

The GSI classifies the principal aquifer types in Ireland as:

Bedrock Aquifer

Rkc – Regionally Important Aquifer – Karstified (conduit)

Rkd – Regionally Important Aquifer – Karstified (diffuse)

RK – Regionally Important Aquifer – Karstified

Rf – Regionally Important Aquifer – Fissured bedrock

Lm – Locally Important Aquifer – Bedrock which is Generally Moderately Productive

Lk – Locally Important Aquifer – Karstified

LI – Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones

PI – Poor Aquifer – Bedrock which is Generally Unproductive except for Local Zones

PU – Poor Aquifer – Bedrock which is Generally Unproductive

Gravel Aquifer

Lg - Locally Important Aquifer - Sand & Gravel

Rg - Regionally Important Aquifer - Sand & Gravel

The bedrock aquifers underlying the central and western portions of the site according to the GSI (www.gsi.ie/mapping) National Bedrock Aquifer Map is classified as (LI) Locally Important Aquifer, i.e., bedrock aquifer which is moderately productive only in local zones. The GSI (2025) currently indicates that the eastern portion of the site overlies (PI) Poor Aquifer, which denotes an aquifer which is generally unproductive except in local zones.

The general groundwater flow direction in this aquifer is towards the coast and also towards the overlying rivers. This aquifer is not expected to maintain regional groundwater flow paths. Groundwater circulation from recharge to discharge points will more commonly take place over a distance of less than a kilometre. The majority of groundwater flow will be a rapid flow in to upper weathered zone but flow in conduits is commonly recorded at depths of 30 to 50 mbgl. The aquifer is not considered to have any primary porosity, and flow will be through fractures, some of which will have been enlarged by karstification and dolomitisation. The fissured nature and the moderate permeability of the bedrock close to the surface imply that water will move at high velocities.

The flow paths and key characteristics within the Swords GWB are described as follows (GSI, 2025):

- **Groundwater Flow Paths** : 'The general groundwater flow direction in this aquifer is towards the coast and also towards the overlying rivers. This aquifer is not expected to maintain regional groundwater flow paths. Groundwater circulation from recharge to discharge points will more commonly take place over a distance of less than a kilometre. The majority of groundwater flow will be a rapid flow in to upper weathered zone but flow in conduits is commonly recorded at depths of 30 to 50 mbgl. The aquifer is not considered to have any primary porosity and flow will be through fractures, some of which will have been enlarged by karstification and dolomitisation.

The fissured nature and the moderate permeability of the bedrock close to the surface imply that water will move at high velocities.'

- **Main Recharge Mechanisms:** 'Diffuse recharge will occur via rainfall percolating through the subsoil. The proportion of the effective rainfall that recharges the aquifer is largely determined by the thickness and permeability of the soil and subsoil, and by the slope. Due to the generally low permeability of the aquifers within this GWB, a high proportion of the recharge will then discharge rapidly to surface watercourses via the upper layers of the aquifer, effectively reducing further the available groundwater resource in the aquifer. There are areas of very high drainage density, which indicates a large proportion of the effective rainfall becomes surface runoff in this area. The area is located from Swords to Donaghmore about 10 km west of there, and between the Broadmeadow and Ward Rivers.'
- **Main Discharge Mechanisms:** 'The GWB will discharge directly to the Irish Sea along the coast and there will also be discharge to the overlying rivers, if they are in hydraulic continuity with the aquifer'.
- **Summary Key Characteristics:** 'This GWB is located in the north of County Dublin. Elevations range from 100 m OD in the west at Ratoath, Co. Meath to sea level along the coast between Swords and Rush. The area is low lying with elevations reducing towards the east and also more locally towards the streams in the area. The GWB is composed of moderate permeability karstified limestone. Groundwater flow occurs along fractures, joints and major faults. There are a number of warm springs located within this GWB, which suggest deep groundwater circulation is possible. Recharge occurs diffusely through the subsoils and via outcrops. The aquifers within the GWB are generally unconfined but may become locally confined where the subsoil is thicker and/or lower permeability. Most flow in this aquifer will occur near the surface. In general, the majority of groundwater flow occurs in the upper 10 m, comprising a weathered zone of a few metres and a connected fractured zone below this. However, deep-water strikes are commonly found in more isolated faults/ fractures at depths of 30 – 50 mbgl. Flow path lengths are not considered to be on a regional scale and are typically less than 1km in length. Groundwater discharges to the numerous streams and rivers crossing the aquifer, and to the springs and seeps towards the coast'.

Regional groundwater flow would most likely be in line with local topography to the east towards the coastline and Northwest Irish Sea. The flow direction in the overburden generally follows no fixed pattern or trend.

These aquifer types are characterised by discrete local fracturing with little connectivity rather than large, connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local to short distances. Therefore, given the local flow paths (<1km) and little connectivity, there is low potential for a hydrogeological connection/linkage to the Natura 2000/conservation/protection areas located at the Northwest Irish Sea and Rogerstown Estuary, located c. 1.6km east and c. 0.85km north of the development, respectively, at the point of closest proximity.

The flow direction in the overburden generally follows no fixed pattern or trend. Flows of this nature are typical of low permeability clay strata with intermittent fill areas, where often the water level measures represent pore water seepages into the overburden monitoring well (opposed to bedrock wells) or perched groundwater conditions (not bedrock aquifer water). The clay is not considered to be a contamination pathway based on the discontinuous perched/pore water table meaning there is no continuous connectivity of shallow groundwater.

Additionally, groundwater is also likely to be in continuity with the Balalease North Stream which represents the most significant hydrological feature in the region of the site, running / flowing north of the site and ultimately discharging to the Rogerstown Estuary.

There are no recorded Public Supply Source Protection Area or Group Scheme Preliminary Source Protection Areas in the vicinity of the proposed development site. There are no recorded source protection areas / Zones (SPZs, which are zones defined by the GSI within which development is limited in order to protect groundwater from potential pollution) or recorded groundwater resource protection zones in the immediate area of the proposed site, i.e., zones surrounding a groundwater abstraction area. The Public Supply Source Protection Area in closest proximity to the proposed development site is BOG OF THE RING PWS which is located approximately 8.4 km northwest of the site. This Public Supply Source Protection Area does not share a hydrological or hydrogeological connection to the site. The subject development site lies outside of the zone of contribution to this supply.

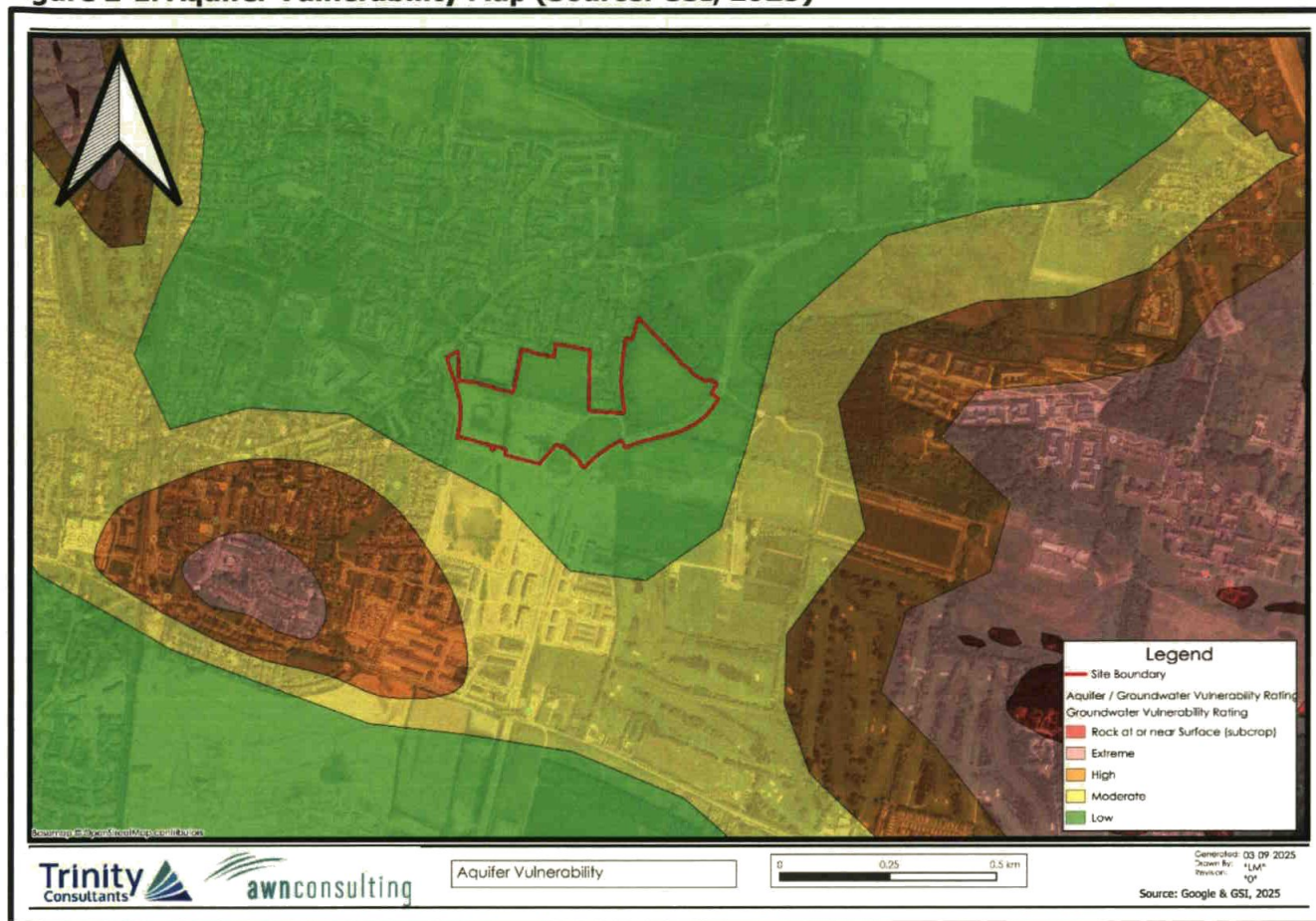
2.2.4 Aquifer Vulnerability

Groundwater vulnerability is an indication of how easily the aquifer can become contaminated by human activity. It is dependent on the thickness and permeability of the overlying soils and depth to the water table. For example, a bedrock aquifer with minimal thickness of overburden or with a thin layer of permeable overburden will be more vulnerable to contamination than a bedrock aquifer which has a thick layer of low permeability overburden. Extreme groundwater vulnerability is also associated with karst landforms as these are a direct pathway for water and contaminants to enter the aquifer from the surface.

The GSI presently classifies the groundwater / aquifer vulnerability of the entire site as 'Low' vulnerability as shown in Figure 2-2, which is indicative of 10m+ overburden thickness of low permeability subsoil (CLAY in this instance). The GSI (2025) does not indicate any bedrock outcrops within the proposed site boundary or in the immediate vicinity. The GSI vulnerability classification is consistent with data obtained from the site investigations carried out by Ground Investigation Ireland (GII, 2022), at the proposed development site, where soft to stiff sandy gravelly glacial Clays with sand lenses were encountered. Bedrock was encountered at the site in one borehole (BH19, western portion of the site) encountered bedrock which was found at a depth of 10.50mbgl (BH19), while no Bedrock was encountered in the eastern portion of the site down to a maximum depth of 14.7mbgl.

The aquifer vulnerability class in the region of the site is presented as Figure 2-2 below.

Figure 2-1. Aquifer Vulnerability Map (Source: GSI, 2025)



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3. CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is developed based on a good understanding of the hydrological and hydrogeological environment, plausible sources of impact and knowledge of receptor requirements. This in turn allows possible Source Pathway Receptor (S-P-R) linkages to be identified. If no S-P-R linkages are identified, then there is no risk to identified receptors.

3.1 Assessment of Plausible Sources

Potential sources during both the construction and operational phases are considered. For the purposes of undertaking the potential of any hydrological/ hydrogeological S-P-R linkages, all potential sources of contamination are considered without taking account of any measures intended to avoid or reduce harmful effects of the proposed project (control/design measures) i.e. a worst-case scenario. Construction sources (short-term) and operational sources (long-term) are considered below.

Construction Phase

The following potential sources are considered plausible risk scenarios for the proposed construction site:

- i. Hydrocarbons or any hazardous chemicals will be stored in specific bunded areas. Refuelling of plant and machinery will also be carried out in bunded areas to minimise risk of any potential being discharged from the site. As a worst-case scenario, a rupture of a 1,000-litre tank to ground is considered in this analysis which disregards the effect of bunding. This would be a single short-term event.
- ii. Leakage may occur from construction site equipment. As a worst-case scenario an unmitigated leak of 300 litres is considered. This would be a single short-term event.
- iii. Use of wet cement (and lime stabilization process) is a requirement during construction. Run-off water from recent cemented areas will result in highly alkaline water with high pH. As this would only occur during particular phases of work this is again considered as a single short-term event rather than an ongoing event.
- iv. Construction requires soil excavation and removal. Unmitigated run-off could contain a high concentration of suspended solids and contaminants such as hydrocarbons during earthworks. These could be considered intermittent short-term events, i.e. on the basis that adequate control measures which will be incorporated in the Construction Environmental Management Plan (CEMP) fail.
- v. During the excavations for the development, no significant long-term dewatering is expected.

Operational Phase

The following sources are considered plausible post construction:

- i. The Proposed Development does not require any bulk chemical storage and therefore the potential for water quality impact is negligible.
- ii. Leakage of petrol/ diesel fuel may occur from individual cars in parking areas; run-off may contain a worst-case scenario of 70 litres for example.
- iii. The stormwater drainage system comprises a SuDs design utilises green roofs, underground attenuation system, detention/infiltration basins, vortex flow control device (Hydrobrake or equivalent), bio-swales with filter drains, infiltration blankets, rain gardens, tree pits, permeable paving (porous surfacing), an oil separator, and petrol / hydrocarbon interceptors (or equivalent).

The storage system will discharge following the characteristics of a greenfield run-off into the existing 1350mm surface water culvert to the northwest of the site (Catchment 4) and to the Ballalease North (Portrane stream) BALLYBOGHIL_010 (European Code: IE_EA_08B012200) river waterbody, both of which eventually outfall to the Rogerstown Estuary to the north (c. 0.9km linear distance at the point of closest proximity). As such the potential for silt laden runoff is low. It should be noted that the worst-case scenario (70 litres) under consideration here disregards the effect of SuDS.

- iv. SuDS features will provide a surface water treatment train and promote source control throughout the development while also providing attenuation storage at source.
- v. The development will be fully serviced with separate foul and stormwater sewers which will have adequate capacity for the facility and discharge limits as required by Uisce Éireann (Irish Water) licencing requirements. The foul discharge from the site will join the public sewer and will be treated at the Portrane Water Wastewater Treatment Plant (WWTP EPA Licence: D0114-02) prior to subsequent discharge to the Northwestern Irish Sea through a primary discharge point located east of St. Ita's Hospital. This WWTP is required to operate in compliance with and under the respective/corresponding EPA licence meet environmental legislative requirements as set out in such licence prior to discharge to the Northwest Irish Sea off shore of the Donabate – Portrane peninsula.

3.2 Assessment of Pathways

The following pathways have been considered within this assessment with impact assessment presented in Section 3.4:

The potential for offsite migration due to any construction discharges is low as there is no significant pathway in the aquifer and all construction water is passed through treatment (Phase 1 & 2 permitted attenuation ponds) installed prior to discharge offsite

- i. There would be a potential pathway to the underlying aquifer through the bedrock via vertical migration from any localised diesel/ fuel oil spills during either construction or operational phases. The site is underlain by a 'Locally Important Aquifer' (LI). However, these aquifer types are characterised by discrete local fracturing with little connectivity rather than large, connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local to short distances.
- ii. There is an indirect hydrological linkage for construction / operation run-off or any small hydrocarbon leaks from the site to the Rogerstown Estuary and Northwest Irish Sea and its associated corresponding SAC/SPA/pNHA as stormwater discharges ultimately into the Rogerstown Estuary c. 0.85 km north of the development site. However, as the stormwater discharge is fully treated by the permitted attenuation and interceptor during construction and operation, there is no potential for water quality exceeding SI threshold concentrations to be exceeded at the Rogerstown Estuary or Northwest Irish Sea.
- iii. There is no 'direct' pathway for foul sewage to any receiving water body (as identified above). There is however an 'indirect pathway' through the public sewer which ultimately discharges to the Irish Water WWTP at Portrane WWTP (incl. Donabate, Rush, Lusk) prior to discharge to the Northwest Irish Sea post treatment. However, as the WWTP is required to operate in compliance with licence requirements there is no potential for water quality exceeding SI threshold concentrations to be exceeded at the Northwest Irish Sea coastal waterbody (HA 08).

3.3 Assessment of Receptors

The receptors considered in this assessment include the following:

- i. Underlying Locally Important bedrock aquifer (Swords GWB).
- ii. Rogerstown Estuary SPA (Site Code: 004015), Rogerstown Estuary SAC (Site Code: 000208) both located c. 0.85 km North of the site; and North-West Irish Sea SPA (Site Code: 004236) located c. 1.7km east of the site

Other Natura 2000 Sites such as those associated with Malahide Estuary were excluded from the assessment due to their distance from the subject site, the potential loading of contaminant from the site (risk scenarios presented in Section 3.1) and significant dilution and mixing through its lengthy pathway.

3.4 Assessment of Source-Pathway-Receptor Linkages

Hydrological Pathway

At present, the site has hydrological connection with Rogerstown Estuary SPA/SAC via the local surface water drainage network which comprises 2no. drainage ditches which convey flow downstream/downgradient to the Beaverstown stream (Rahillion/Ballyboghil_010) which flows c. 705m to the north-west of the site and the Portrane stream (Ballalease North/Ballyboghil_010) c. 440m to the northeast of the site, both of which subsequently discharge to the Rogerstown Estuary, albeit via moderate distance to these receptors, coupled with the significant dilution factor and mixing along the hydrological pathway and downstream in the Rogerstown Estuary (receptor). It should be noted that there is no likelihood of an accidental release of hydrocarbons or silt from the proposed development resulting in any change in surface water quality contributing to these habitats.

The proposed development (design / drainage strategy) site has no direct hydrological pathway or connection to any of the above listed areas of protection and conservation which are located downgradient of the proposed development site. The proposed development would have an indirect hydrological pathway / linkage to the Rogerstown Estuary and Northwest Irish Sea and the corresponding associated Natura 2000 conservation / protection areas via the proposed surface water (stormwater) drainage and the foul (wastewater) network which outfalls to the Rogerstown Estuary (post treatment onsite) and the Northwest Irish Sea, respectively, albeit the source pathway linkage is over a moderate distance allowing for significant attenuation and large dilution factor within the river catchment, estuary and coastal waterbody.

There is no 'direct' pathway for foul sewage to any receiving water body (as identified above). There is however an 'indirect pathway' through the public sewer which ultimately discharges to the Irish Water WWTP at Portrane WWTP (incl. Donabate, Rush, Lusk) prior to discharge to the Northwest Irish Sea post treatment. However, as the foul discharge from the site will join the public sewer and will be treated at the Portrane Water Wastewater Treatment Plant (WWTP EPA Licence: D0114-02) prior to subsequent discharge to Rogerstown Estuary. This WWTP is required to operate under an EPA licence and meet environmental legislative requirements as set out in its licence prior to discharge to the Northwestern Irish Sea off shore of the Donabate – Portrane peninsula.

The Portrane Water Wastewater Treatment Plant is required to operate in compliance with licence requirements, hence there is no potential for water quality exceeding SI threshold concentrations to be exceeded at the Northwest Irish Sea coastal waterbody.

Hydrogeological Pathway

Currently, the site has no direct hydrogeological (groundwater) connection to the Malahide Estuary SPA/SAC, due to the distance of separation (minimum 1.6 km) being greater/larger than the local underground flow paths within the aquifer (<1km). The vertical migration to the underlying bedrock is minimised due to the low aquifer vulnerability (indicative overburden thickness 10m+ Clay), thereby further negating the potential for a hydrogeological linkage pathway to the sensitive receptors. There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.

The proposed development site has a very low potential for a hydrogeological connection / linkage with the Rogerstown Estuary SPA/SAC designated sites listed above via the underlying aquifer due to lengthy underground flow path distances (minimum 0.85km) in an aquifer, which is characterised by low fracture connectivity, discrete local fracturing with little connectivity rather than large, well-connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local (less than 1km). Such a hydrogeological linkage / connection does involve a significant dilution factor downgradient in the aquifer (swords GWB) and estuaries. Additionally, vertical migration to the underlying bedrock is minimised where overburden soil cover is thick across the site resulting in good natural aquifer protection from any localised diesel/ fuel oil spills during either construction or operational phases. There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.

The proposed development would have no direct hydrogeological (groundwater) connection to the Malahide Estuary SPA/SAC, due to the distance of separation (minimum 1.6km) being greater/larger than the local underground flow paths within the aquifer (<1km). The vertical migration to the underlying bedrock is minimised due to the low aquifer vulnerability (indicative overburden thickness 10m+ Clay), thereby further negating the potential for a hydrogeological linkage pathway to the sensitive receptors.

There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.

Table 3-1 below summarises the plausible pollutant linkages (S-P-R) considered as part of the assessment and a review of the assessed risk is also summarised below.

Construction Phase

The potential for impact on the aquifer is Low based on the absence of any bulk chemical storage on site. The overburden thickness, low permeability nature of till and a lack of fracture connectivity within the limestone will minimise the rate of off-site migration for any indirect discharges to ground at the site. As such there is no potential for a change in the groundwater body status or significant source pathway linkage through the aquifer to any Natura 2000 site.

During construction phase, there is no direct open-water pathway between the site and Rogerstown Estuary. However, there is an indirect pathway through the local drainage network (Portrane Canal & existing 1350mm surface water culvert to the northwest of the site) post treatment e.g. silt/sediment remediation in the permitted attenuation pond and interceptor installed during the Phase 1 & Phase 2 development. Should any silt-laden stormwater from construction or hydrocarbon-contaminated water from a construction vehicle leak/tank leak manage to enter into the local drainage network (comprising onsite drainage ditches, surface water sewer, Portrane Stream/Canal or Rogerstown Estuary), the suspended solids will naturally settle within the sewer; however, in the event of a worst case hydrocarbon leak of 1,000 litres this would be diluted to background levels (water quality objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019) by the time the stormwater reaches the nearest Natura 2000 Sites (Rogerstown Estuary, c. 0.9 km linear distance downgradient).

Operational Phase

During operation, the potential for a release is low as there is no bulk fuel/chemical storage and no silt laden run-off. Stormwater will be collected by a drainage system which includes SuDS measures, an attenuation system and oil/ petrol interceptors prior to discharge off-site (albeit these measures have been disregarded for this analysis). In addition, the potential for hydrocarbon discharge is quite minimal based on an individual vehicle (70 litres) leak being the only source for hydrocarbon release. However, even if the operation of the proposed SuDS and interceptor systems are excluded from consideration, there is no likely impact above water quality objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019) in the worst-case scenarios described above at section 3.2 and there will be no significant effect on any European site. The volume of contaminant release is low and combined with the significant attenuation within the stormwater drainage network, hydrocarbons will dilute to background

levels with no likely impact above water quality objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019 at any Natura 2000 sites.

It can be concluded that the in-combination effects of surface water arising from the Proposed Development taken together with that of other permitted developments will not be significant based on the in-combination low potential chemical and sediment expected loading. Therefore, based on the loading of any hazardous material considered in the worst-case scenarios mentioned in Section 3.1 above during construction and operation phases, there is subsequently no potential for impact on downgradient Natura 2000 habitats (Rogerstown Estuary SPA/SAC, c. 0.85 km linear distance downgradient).

It should be noted that the peak effluent discharge, calculated for the proposed development as 6.138 l/s would equate to 1.13% of the licensed discharge at Portrane WWTP [peak hydraulic capacity]. This Annual Environmental Report (AER, 2024) has been prepared for D0114-02, Portrane, Donabate, Rush, Lusk, in Dublin, the WWTP has adequate capacity with the capacity not projected to be exceeded within the next three years (not before 2027). As such, this flow and treatment at Portrane, Donabate, Rush, Lusk WWTP would not have a measurable impact on the overall current water quality and Water Body Status within the Rogerstown Estuary transitional waterbody / Northwest Irish Sea coastal waterbody and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive).

As the Proposed Development will have no additional stormwater run-off during a stormwater event over and above the current level, surface water run-off from the development in the operational phase will therefore have no impact on the current water quality in any overflow situation at Dublin Bay.

It should also be noted that the bathing status has no direct relevance to the water quality status of the Natura sites due to rapid mixing and dilution resulting in no measurable change in water quality within the overall water body.

In addition, there is no long term discharge planned which could have an impact on the status of the water body. In the scenario of an accidental release (unmitigated leaks mentioned above) there is potential for a temporary impact only which would not be of a sufficient magnitude to effect a change in the current water body status.

Finally, in a worst-case scenario of an unmitigated leak and not considering the operation of the SuDS and interceptor already included in the design, no perceptible risk to any Natura 2000 Sites is anticipated given the distance and dilution from source to Rogerstown Estuary and Northwestern Irish Sea protected areas. Potential contaminant loading will be attenuated, diluted and dispersed near source area.

Table 3-1 below presents a summary of the risk assessment undertaken.

Table 3-1. Pollutant Linkage Assessment (without control measures)

Source	Pathways	Receptors Considered	Risk of Impact
Construction Impacts			
Unmitigated leak from an oil tank to ground/ unmitigated leak from construction vehicle (1,000 litres worst case scenario).	Pathway to the underlying poor aquifer. This aquifer is characterised by discrete local fracturing with little connectivity rather than large, connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local.	Bedrock aquifer (Locally Important aquifer)	Low risk of migration through poorly connected fracturing within the limestone (Locally Important Aquifer) rock mass. No likely impact on the status of the aquifer/off site migration due to low potential loading, natural attenuation within cohesive low permeability Till overburden (low aquifer vulnerability) and discrete nature of fracturing reducing off site migration.
Discharge to ground of runoff water with High pH from cement process/ hydrocarbons from construction vehicles/run-off containing a high concentration of suspended solids.	Indirect pathway through stormwater drainage to Rogerstown Estuary (distance source-receptor: 0.9 Km minimum).	SAC/SPA/pNHA sites associated & corresponding to the Rogerstown Estuary and Northwestern Irish Sea.	Potential for local temporary exceedances of statutory water quality standards at outfall. However, no perceptible risk to water requirements for the Natura 2000 sites in Rogerstown Estuary based on loading and high level of dilution in the surface water sewer and on the distance of c. 0.9 km and 1.5 km between the source and Rogerstown Estuary and Northwest Irish Sea, respectively.
Operational Impacts (Summary)			

Source	Pathways	Receptors Considered	Risk of Impact
Foul effluent discharge to sewer	Indirect pathway to Northwest Irish Sea through public sewer	Northwestern Irish Sea SPA / coastal waterbody	No perceptible risk – Even without treatment at Portrane WWTP, the peak effluent discharge (6.138 l/s which would equate to 1.13% of the licensed discharge at Portrane WWTP); would not impact on the overall water quality within Northwest Irish Sea SPA/coastal waterbody and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive).
Discharge to ground of hydrocarbons from carpark leak (70 litres worst case scenario)	Indirect pathway through stormwater drainage to Rogerstown Estuary & Northwest Irish Sea water course (distance source-receptor: 0.9 km & 1.5 km, respectively)	Rogerstown Estuary & Northwest Irish Sea and associated corresponding SAC/SPA/pNHA conservation / protection areas	No perceptible risk – taking into account the extent of loading of contaminant, distance between the source and receptor is c. 0.9 km (Rogerstown Estuary) & 1.5 km (Northwest Irish Sea) and significant dilution in the surface water sewer will ensure any released hydrocarbons are at background levels (i.e., with no likely impact above water quality objectives as outlined in S.I. No. 272 of 2009, S.I. No. 386 of 2015 and S.I. No. 77 of 2019).

4. CONCLUSIONS

A conceptual site model (CSM) has been prepared following a desk top review of the site and surrounding environs. Based on this CSM, plausible Source-Pathway-Receptor linkages have been assessed assuming an absence of any measures intended to avoid or reduce harmful effects of the proposed project (i.e., mitigation measures) in place at the proposed development site.

The proposed development (design / drainage strategy) site has no direct hydrological pathway or connection to any of the above listed areas of protection and conservation which are located downgradient of the proposed development site. The proposed development would have an indirect hydrological pathway / linkage to the Rogerstown Estuary and Northwestern Irish Sea and the corresponding associated Natura 2000 conservation / protection areas via the proposed surface water (stormwater) drainage and the foul (wastewater) network which outfalls to Rogerstown Estuary (post treatment onsite) and Northwestern Irish Sea (post treatment at Portrane WWTP) respectively, albeit the source pathway linkage is over a moderate distance allowing for significant attenuation and large dilution factor within the drainage design, and downstream in the river / estuary catchment and Northwestern Irish Sea.

There is no direct source pathway linkage between the Proposed Development site and any open waters or Natura 2000 sites (i.e., Rogerstown estuary SAC/SPA). There is an indirect source pathway linkage from the Proposed Development through the foul public sewer which will eventually discharge to the Portrane WWTP and ultimately discharges to Northwest Irish Sea SPA (1.7 km east / downgradient of the proposed site). The future development has a peak foul discharge that would equate to 1.13% of the licensed discharge at Portrane WWTP (peak hydraulic capacity). It should be noted that the Portrane WwTP has capacity for this proposed foul effluent (AER, 2024).

The proposed development site has a very low potential for a hydrogeological connection / linkage with the Rogerstown Estuary SPA/SAC designated sites listed above via the underlying aquifer due to lengthy underground flow path distances (minimum 0.85km) in an aquifer, which is characterised by low fracture connectivity, discrete local fracturing with little connectivity rather than large, well-connected fractures which are more indicative of Regional Aquifers. As such, flow paths are generally local (less than 1km). Such a hydrogeological linkage / connection does involve a significant dilution factor downgradient in the aquifer (Swords GWB) and estuaries. Additionally, vertical migration to the underlying bedrock is minimised where overburden soil cover is thick across the site resulting in good natural aquifer protection from any localised diesel/ fuel oil spills during either construction or operational phases. There are no groundwater dependent wetlands within the downstream zone of influence of the proposed development.

The proposed development would have no direct hydrogeological (groundwater) connection to the Malahide Estuary SPA/SAC, due to the distance of separation (minimum 1.6km) being greater/larger than the local underground flow paths within the aquifer (<1km). The vertical migration to the underlying bedrock is minimised due to the low aquifer vulnerability (indicative overburden thickness 10m+ Clay), thereby further negating the potential for a hydrogeological linkage pathway to the sensitive receptors.

Even disregarding the construction operation of design mitigation measures including an attenuation system and petrol interceptors on site, it is concluded that there will be imperceptible impacts from the proposed development to the water bodies due to emissions from the site stormwater drainage infrastructure to the wider drainage network. It should be noted the proposal also includes an attenuation system, SuDS design measures and petrol / hydrocarbon interceptors as part of best practice project design, and these features will provide additional filtration from the site to the drainage network.

It is concluded that there are no pollutant linkages as a result of the construction or operation of the Proposed Development which could result in a water quality impact which could alter the habitat requirements of the Natura 2000 sites within Rogerstown Estuary (SPA/SAC/pNHA) and the Northwestern Irish Sea (North-West Irish Sea SPA).

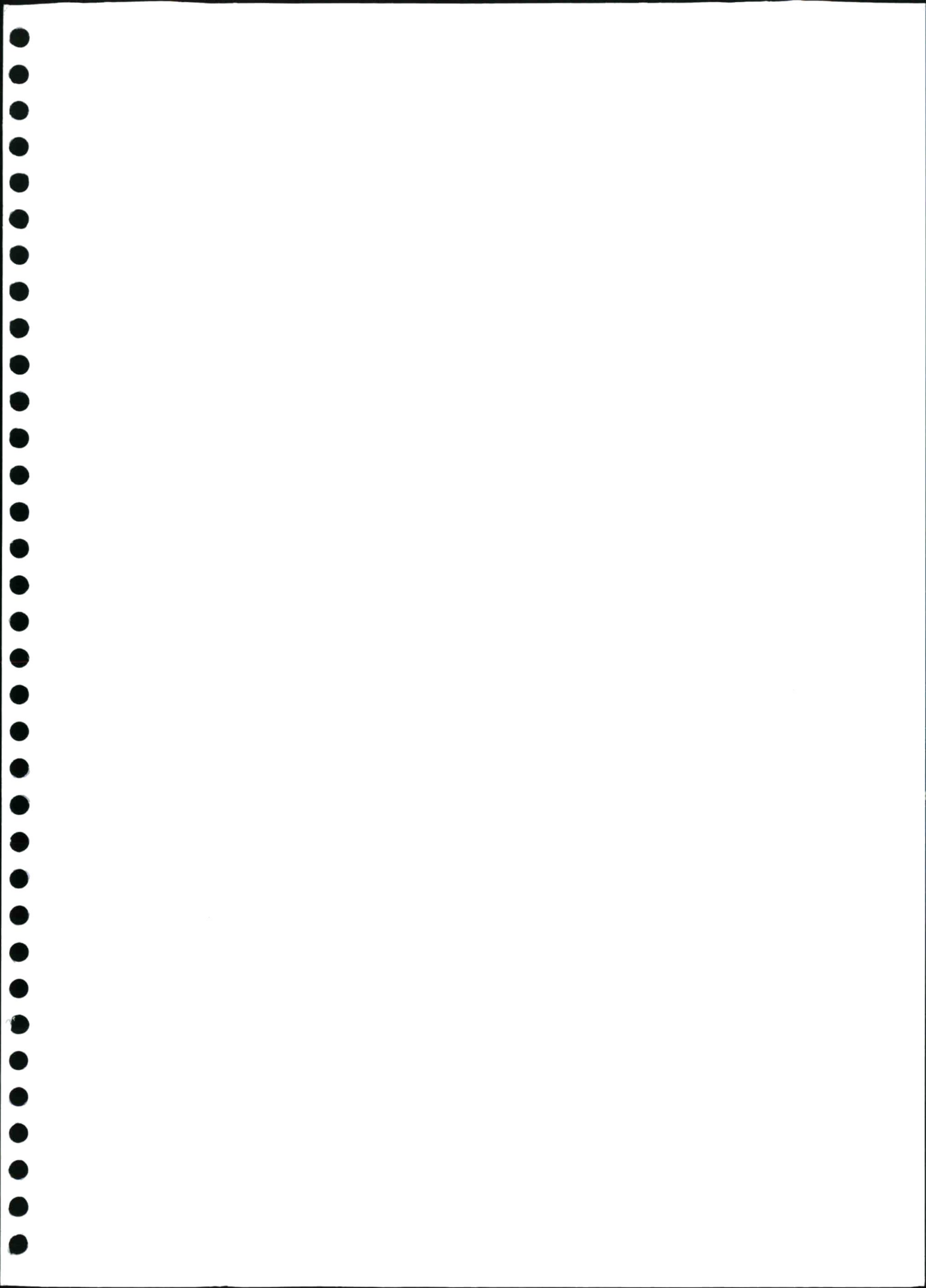
Finally, and in line with good practice, appropriate and effective mitigation measures will be included in the construction design, management of construction programme and during the operational phase of the proposed development. With regards to the construction phase, adequate mitigation measures will be incorporated in the Construction Environmental Management Plan (CEMP). These specific measures will provide further protection to the receiving soil and water environments. However, the protection of downstream European sites is in no way reliant on these measures and they have not been taken into account in this assessment.

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