6 BIODIVERSITY

6.1 INTRODUCTION

This chapter of the Environmental Impact Assessment Report (EIAR) comprises an appraisal of the likely effects on biodiversity (flora and fauna) of the Proposed Development at Portmarnock South (known as Phase 1F).

The potential for any impacts on sites designated as European (Natura 2000) sites, under the EU Habitats and Birds Directives was also appraised, and the results of that study are presented in a separate report (Natura Impact Statement).

Brady Shipman Martin was commissioned to prepare this chapter of the EIAR on behalf of Portmarnock Real Estate Developments Ltd. It was prepared by ecologist Sadye Goldfarb and Senior Ecologist and Associate Matthew Hague CEnv MCIEEM, with additional ecological surveys undertaken by ornithologist Mr John Fox (the bird survey reports are included at **Appendix 6.1**). and by bat, large mammal and bird specialist Brian Keeley (the bat survey report is included at **Appendix 6.2**). An Outline Habitat Management Plan is included at **Appendix 6.3** and should be read in conjunction with the Landscape Design Statement, prepared by Brady Shipman Martin and submitted separately.

Sadye Goldfarb, ecologist at Brady Shipman Martin, 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 EIAR Biodiversity chapters, AA Screening Reports, EIA Screening Reports and SEA Screening Reports. She is also experienced in undertaking baseline ecological surveys and preparing Ecological Impact Assessments Reports (EcIA)

Matthew Hague BSc MSc Adv. Dip. Plan. & Env. Law CEnv MCIEEM, Senior Ecologist and Associate at Brady Shipman Martin, 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).

6.2 ASSESSMENT METHODOLOGY

A comprehensive desk-based assessment has been undertaken, and numerous site visits have been carried out by the authors at the Site and in the wider area of Portmarnock South since 2016, most recently in June and July 2025, as detailed in the following sections. Informal consultations have also been undertaken with Fingal County Council Biodiversity Officer.

6.2.1 Desk Study

This EIAR Biodiversity chapter has been prepared in accordance with the following **publications**: -

- EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022);
- Environmental Impact Assessment of Projects – Guidance on Screening (European Commission, 2017);
- Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report (European Commission, 2017);
- OPR Practice Note PN02: Environmental Impact Assessment Screening (Office of the Planning Regulator (OPR) (2021);

- EPA Advice Notes of Current Practice (in the Preparation of Environmental Impact Statements) (EPA, 2003) (and revised advice notes 2015);
- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Commission, 2013);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Local Government and Heritage, 2018);
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (Transport Infrastructure Ireland (formerly the National Roads Authority), 2009); and
- 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 again in September 2024 (V1.3);

This EIAR Biodiversity chapter has been prepared in accordance with the following **legislation**: -

- The Planning and Development Act 2000, as amended (the "Planning Acts");
- The Planning and Development Regulations 2001, as amended (the "Planning Regulations");
- The Wildlife Act 1976 to 2022 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 2011, as amended;
- Flora (Protection) Order 2022 (SI No. 235 of 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 (the "EIA Directive");
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

The EIAR Biodiversity chapter has regard to the following **Policies** and **Plans**: -

- Ireland's 4th National Biodiversity Plan 2023 – 2030 (Department of Housing, Local Government and Heritage).
- All-Ireland Pollinator Plan 2021-2025 (National Biodiversity Data Centre);
- Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016).
- Planning for Watercourses in the Urban Environment (Inland Fisheries Ireland, 2020);
- Fingal County Development Plan 2023-2029, including the associated Natura Impact Report.

Information was collated from the **sources** 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).
- Recent and historical OSi mapping and aerial imagery, including www.geohive.ie;
- Photographs taken at the Site;
- Information on protected areas, as well as watercourses, catchments and water quality in the area available from the EPA (gis.epa.ie/EPAMaps/);
- 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);
- Information on land-use zoning from the online mapping of the Department of the Environment, Community and Local Government (myplan.ie/en/index.html);
- Gilbert, G., Stanbury, A. and Lewis, L. (2021) Birds of Conservation Concern in Ireland 4: 2020 – 2026 (Irish Birds 43: 1-22; and
- Benson, L. (2009). Use of Inland Feeding Sites by Light-bellied Brent Geese in Dublin 2008 – 2009: A New Conservation Concern? Irish Birds 8: 563-570.
- EU Biodiversity Strategy to 2030.

The EIAR Biodiversity chapter takes full account of the design of the Proposed Development and a detailed examination of all relevant elements of the Proposed Development was undertaken.

Where relevant the information contained in the following documents was also taken into account.

- Portmarnock South Local Area Plan 2013 – 2019 (extended 2018 – 2023) and the accompanying Natura Impact Report (now expired, but of relevance for background context and history).
- Portmarnock Phase 1E Natura Impact Statement (Brady Shipman Martin, 2024);
- Portmarnock Phase 1E Environmental Impact Assessment report Biodiversity Chapter (Brady Shipman Martin, 2024);
- Portmarnock Phase 1D Natura Impact Statement (Brady Shipman Martin, 2021);
- Portmarnock Phase 1D Environmental Impact Assessment report Biodiversity Chapter (Brady Shipman Martin, 2021);
- Portmarnock Phase 1D (Amendment application) Appropriate Assessment Screening report (Brady Shipman Martin, 2023);
- Portmarnock Phase 1C Natura Impact Statement (Brady Shipman Martin, 2019);
- Portmarnock Phase 1C Ecological Impact Assessment (Brady Shipman Martin, 2019);
- Portmarnock Phase 1B Natura Impact Statement (Brady Shipman Martin, 2017);
- Portmarnock Phase 1B Ecological Impact Assessment (Brady Shipman Martin, 2017);
- Proposed Phase 1A Residential Development at Station Road, Portmarnock, Co. Dublin: Natura Impact Statement and Biodiversity Report (Golder Associates, 2014);

- Conservation Management Plan for Portmarnock Phase 1A Residential Development (Brady Shipman Martin, 2014);
- Baldoyle to Portmarnock Coastal Path and Cycleway (Natura Impact Statement prepared by WS Atkins Ireland Ltd on behalf of Fingal County Council, 2018);
- Racecourse Park Development Project (Natura Impact Statement prepared by Scott Cawley on behalf of Fingal County Council, 2021);
- Proposed Residential Development at Portmarnock South Phase 1F – Preliminary Flood Risk Assessment (Egis Ltd, 2025);
- Proposed Residential Development at Portmarnock South Phase 1F – Preliminary Water Services Report (Egis Ltd, 2025);
- Water Framework Directive (WFD) Screening Assessment for a Proposed Residential Development at Portmarnock South, Co. Dublin (AWN Consulting Ltd, 2025).
- Conservation Objectives documents for relevant European sites (NPWS, various dates);
- Construction and Environmental Management Plan for Phase 1F (Evara Developments Ireland Ltd, 2025).

6.2.2 Field Surveys

The preparation of this EIAR Biodiversity chapter and the stand-alone Natura Impact Statement (NIS) was based on comprehensive site survey data, carried out over multiple seasons. In addition, extensive consultation was undertaken between the authors of the biodiversity chapter / NIS and the Biodiversity Officer of Fingal County Council, who provided additional detail of bird use of the Portmarnock South Lands. Furthermore, a review was made of all relevant biodiversity data, including bird counts, that is publicly available and published in planning application documentation for projects in the vicinity of the proposed development – including the FCC Racecourse Park Project (ABP Ref. JP06F.311315) and the Portmarnock Pumping Station (FCC Reg. Ref. F21A/0389 – ABP Ref. ABP-314663-22) among others.

Multiple biodiversity surveys have been undertaken at the Portmarnock lands between 2016 and 2025. Specifically in relation to the Phase 1F lands these surveys were undertaken by competent specialists and experts in their respective fields (large mammals and bat specialists and bird specialists as named in this report) who carried out repeated visits in addition to the numerous surveys undertaken by the main EIAR chapter author, Matthew Hague, a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and a Chartered Environmentalist with an extensive track record in undertaking ecological surveys. The surveys covered the Phase 1F lands as well as the route of the proposed rising main south of Phase 1F (and south of Moyne Road).

A final ecology site visit was carried out by Brady Shipman Martin on 21 May 2025, prior to the submission of the planning application, and a follow up survey took place on 2 July 2025 (landscape and biodiversity design). The surveys comprised mammal (i.e. large mammals – badger and otter) surveys, habitat survey (to Fossitt Level 3), botanical (rare plant) surveys and surveys for invasive species (particularly giant hogweed and Japanese knotweed. Given the nature of the site, both the proposed Phase 1F development area and the wider Portmarnock South lands – including the Bird Quiet Zone and the Buffer Zone – were covered in the surveys. This particularly applied to the specialist bird surveys.

In summary, it is estimated that over 70 separate surveys (bats, birds, large mammals, habitat/botanical) were undertaken by the survey team (Brady Shipman Martin) since 2022. All of these surveys were used to inform the Phase 1F planning application (approximately half of these surveys were focussed on birds).

As noted above, significant amount of field-based research has been undertaken by the authors as well as other qualified and experienced ecologists at the Site.

Site walkover surveys have been undertaken at the Site by the author and other specialist ecologists on numerous occasions between 2016 and 2025, both in the preparation of the current planning application and as part of the previous, permitted developments at Portmarnock South. An assessment of habitat suitability for European protected species and species with links to European sites was undertaken, in order to appraise the potential for *ex-situ* effects on European sites (refer to the accompanying Natura Impact Statement for full details).

In addition to the biodiversity surveys and research, this report has full regard to the other relevant chapters of the EIAR, including the Water chapter, (prepared by Egis Ltd.) and the Water Framework Directive Screening Assessment (prepared by AWN Consulting).

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

- Habitat, botanical and invasive alien plant surveys and mapping;
- Surveys of breeding birds and overwintering birds;
- Bat activity and roosting surveys;
- Badger and large mammal surveys;
- Appraisal of site suitability for lepidoptera, amphibians and reptiles.

Habitats

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*[1] and were classified using *A Guide to Habitats in Ireland*[2] with due regard to the *Interpretation Manual of European Habitats*[3]. Vascular plant nomenclature follows that of the *New Flora of the British Isles 4th Edition*[4].

A final site survey (habitats and biodiversity) was undertaken by Brady Shipman Martin on 21 May 2025 and a follow up survey took place on 2 July 2025 (landscape and biodiversity design).

Bird Surveys (Winter Birds and Breeding Birds)

Bird activity surveys (winter and summer) were undertaken at the Portmarnock South Phase 1F lands on multiple occasions between October 2023 and July 2025. These surveys were carried out specifically for the purpose of preparing planning applications for the Proposed Development of Phase 1E (permitted) and Phase 1F (the current project). The surveys were undertaken by ornithologist John Fox and took place on the following occasions:

- Between the 7th of October 2022 and the 25th of April 2023, 26 day-time visits were made to the Moynetown Lands, Portmarnock, Co Dublin. Visits were undertaken between the morning and midafternoon. Most of the visits were for a period of about 2 hours but some were longer and for more than three hours. See Appendix 6.1A.

[1] Smith, G. F., O'Donoghue, P., O'Hora, 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]

[2] 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]

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

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

- Between 2 October 2023 and 5 March 2024, and 30 October 2024 to 20 March 2025, 16 day-time visits were made to the Moynetown Lands, Portmarnock, Co Dublin. Visits were undertaken between the morning and mid-afternoon. Most of the visits were for a period of about 2 hours. See Appendix 6.1B.
- Between the 25th of April and the 1st of August 2023, 16th of April and 6th of May 2024 and 17th of April and the 1st of July 2025, 13 day-time visits were made to the Maynetown Lands, Portmarnock, Co Dublin. Visits were undertaken in early morning. All of the visits were for a period of between one and three hours. See Appendix 6.1C.
- Between the 14th of April and the 2nd of July 2025, 6 day-time visits were made to the Maynetown Pipeline Lands, Portmarnock, Co Dublin. These are the lands to the south of Mayne Road, in which it is proposed to construct the rising main. Visits were undertaken in early morning. All of the visits were for a period of between two and three hours. See Appendix 6.1D.

During each visit the lands were observed from various vantage points and were walked slowly. The routes walked focused primarily on existing hedgerows, areas of scrub and mature trees. All birds detected were recorded on field sheets. Bird species that were heard or seen were recorded their locations noted and breeding status assigned to them.

Bats

The undeveloped and developed lands at Portmarnock South have been surveyed for bats on numerous occasions between May 2020 and July 2025. The surveys commenced with an overall evaluation of the Site for bat roost potential, and this was followed by night-time bat detector surveys, using hand-held and static bat detectors utilising ultrasonic receivers to convert bat signals used in navigation and social interaction to a recordable and measurable pulse. Hand-held detectors provide instant data on bat activity, and static detectors are left in appropriate locations for a period – to record bat activity data over a defined time period for later analysis.

The sound analysis was later carried out by automatic identification with Kaleidoscope Pro software and then evaluation of the identifications by the bat specialist.

Weather conditions were ideally suited to bat survey on all occasions in 2020, 2021, 2022, 2023 and 2025 and comprehensive data on bat activity was gathered. There are no roosting sites within the Phase 1F lands. Nevertheless, comprehensive surveys took place. The surveys were undertaken by bat specialist Mr Brian Keeley (Wildlife Surveys Ireland Ltd) and his team on the following occasions:

- 25 and 26 May 2020, 1 and 2 June 2021, 29 and 30 June and 15 September 2022 and 14 and 15 July 2023 (previous applications).
- 7 and 10 July 2025 (the current application).
- The Bat Survey Report is included at Appendix 6.2;

Large Mammals

All hedgerows, tree lines, field edges and watercourses / ditches in the wider vicinity of Phase 1F were searched for any evidence of badgers, such as setts, commuting routes, territorial marking, latrines or feeding signs as well as paw prints, snagged hairs and piles of bedding material. In tandem with the badger surveys, examinations of the streams and drainage ditches in the wider area were undertaken to search for evidence of otters, such as tracks, slides, spraints (droppings), feeding signs and holts.

Mammal surveys followed the methodologies contained in the NRA *Guidelines for the Treatment of Badgers Prior to the Construction of National Road Schemes*[5] and the *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes*[6].

Other Species

During the course of the walkover surveys the Site was evaluated for the presence of and suitability for lepidoptera (butterflies and moths), amphibians (common frog and smooth newt) and reptiles (common / viviparous lizard).

Watercourses

There are no watercourses on the site. A visual appraisal of ditches and watercourses in the wider vicinity was undertaken. Biological kick-sampling, a method of assessing the ecological quality of a watercourse, was not carried out, due to the unsuitable substrate of the drainage ditches in the wider area, the flow regime and general overall condition.

6.2.3 Evaluation of Ecological Features

The methodologies used to determine the value of ecological resources, to characterise impacts of the proposed development and to assess the significance of impacts and any residual effects are consistent with the EPA *EIAR Guidelines* (2022) and are in accordance with the NRA (TII) *Guidelines for Assessment of Ecological Impacts of National Road Schemes* (2009)[7], (the '*NRA Guidelines*' hereafter. This is consistent with the approach taken in the CIEEM *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland – Terrestrial, Freshwater, Coastal and Marine*[8].

In accordance with the NRA (TII) Guidelines[9], impact assessment is undertaken of sensitive ecological receptors (Key Ecological Receptors) within the Zone of Influence of the proposed Project. According to the guidelines, the Zone of Influence is the '*effect area*' over which change resulting from the proposed Project is likely to occur and the Key Ecological Receptors are defined as features of sufficient value as to be material in the decision-making process for which potential impacts are likely. As noted in the guidelines, the following geographic frames of reference are used when determining ecological value: -

- International Importance;
- National Importance;
- County Importance; and
- Local Importance (Higher Value).

In the context of the Proposed Development site at Portmarnock Phase 1F, a Key Ecological Receptor is defined as any feature valued between Local Importance (Higher Value), such as sites containing semi-natural habitat types with high biodiversity in a local context, or populations of species that are uncommon in the locality, and International Value (such as a European site).

[5] https://cieem.net/wp-content/uploads/2019/07/Guidelines-for-the-Treatment-of-Badgers-prior-to-the-Construction-of-a-National-Road-Scheme.pdf

[6] https://cieem.net/wp-content/uploads/2019/07/Guidelines-for-the-Treatment-of-Otters-prior-to-the-Construction-of-National-Road-Schemes.pdf

[7] NRA (TII), 2009. Guidelines for Assessment of Ecological Impacts of National Road Schemes. National Roads Authority

[8] The CIEEM Guidelines', CIEEM, 2024

[9] The NRA Guidelines, while originally developed for roads projects, provide clear, comprehensive and logical methods for evaluating the potential impacts of significant projects of all kinds in Ireland. The methodologies presented in the Guidelines are reproducible and reliable and are thus appropriate to the Proposed Development.

Features of local importance (Lower Value) and features without ecological value are not considered to be Key Ecological Receptors in this context.

6.3 RECEIVING ENVIRONMENT

6.3.1 General Description of the Existing Environment

The Proposed Development comprises a sixth phase of development (Phase 1F) at St. Marnock's Bay, Portmarnock South in County Dublin. Development to date (Phases 1A, 1B, 1C, 1D and 1E) on the overall lands has been guided by the framework established in the Portmarnock South Local Area Plan, which identified lands for residential development, lands for wider open space provision (including for connectivity to lands at Baldoyle / Stapolin south of Mayne Road), and lands for ecological and landscape mitigation and protection areas (refer to Figure 6.1).

Five previous phases of development, providing 771no. residential units and a 'local centre', have been permitted on the lands: -

- Phase 1A (FCC Planning Ref. No.: F13A/0248) for 101no. residential units.
- Phase 1B (ABP Ref. No.: 300514-17) for 150no. residential units.
- Phase 1C (ABP Ref. No.: 305619-19) for 153no. residential units and 'Local Centre'.
- Phase 1D (ABP Ref. No.: 312112-21) for 172no. residential units.
- Phase 1E (FCC Planning Ref. No.: LRD0002/S3) for 195no. residential units.

Phases 1A, 1B, 1C are complete, Phase 1D is nearing completion and Phase 1E is under construction on site. In addition to the provision of residential development the previous phases included for the following key elements: -

- Phase 1A included the provision of significant areas of ecological and landscape buffer / open space to the east and south of the residential zoned lands within the Portmarnock South LAP (refer to Figure 13.2). The open space zoned lands, which extend to c. 32 hectares and included for provision of a dedicated 'bird quiet zone', have been transferred to Fingal County Council (FCC). An additional c.10 hectares of conservation lands on the Murragh, east of the Coast Road, were also transferred to FCC.
- In 2018, Fingal County Council received permission from An Bord Pleanála (ABP Ref.: JP06F.300840[10]) for provision of a 1.8km Pedestrian and Cycle Scheme between Baldoyle and Portmarnock. The pedestrian / cycleway, which opened in June 2020, passes through the previously transferred (in Phase 1A) open space lands to the east of the residential zoned lands.
- In September 2022, Fingal County Council received permission from An Bord Pleanála (ABP Ref.: JP06F.311315[11]) for a 'park development project known as 'Racecourse Park' located between Baldoyle and Portmarnock, Co. Dublin'. The proposed park development includes for works within open space lands previously transferred to FCC under the Phase 1A development.
- The Phase 1B development included for the provision of a regional wetland, in accordance with the requirements of the LAP, within the open space lands. The wetland was constructed in 2019 and is fully operational.
- Phase 1B included for the incorporation of a recorded monument – a mound (DU015-014) within a distinctive central open space setting in this phase of development. This open space incorporating the recorded monument is complete.

With the exception of a small area in the north-western-most corner, the proposed Phase 1F development site is located entirely to the east of the townland boundary hedgerow which runs

[10] https://www.pleanala.ie/en-ie/case/300840
[11] https://www.pleanala.ie/en-ie/case/311315

through the centre of the residential zoning in the (former) LAP lands. It is to the immediate north of the permitted Phase 1 lands, under construction, and is bounded to the north by the Portmarnock to Baldoyle Greenway.

The main development site comprises former arable lands. The southern part of the Phase 1F area is currently used for the temporary storage of soil material and as a construction compound for the permitted developments, while the northern part is unmanaged and has been left fallow. There are no trees or any other features of note on the site. Within the eastern-most part of the site is a fenced-off area demarcating an archaeological feature (see the Archaeology chapter for full details).

The red line boundary of the proposed development includes a link to the south, through which a foul sewer will be constructed. This will be a new rising main from the existing St. Marnock's Pump Station at Station Road connecting with the North Fringe Sewer to the south. This involves installing a rising main southwards through the proposed Phase 1F housing scheme, through Phase 1E permitted under FCC Reg. Ref. LRD0002/S3 and the Racecourse Park permitted under ABP Reg. Ref. JP06F.311315 and involves crossing under both Moyne Road and the Mayne River respectively over a distance of approximately 1.5km; and all associated and ancillary site development, infrastructural, landscaping and boundary treatment works.

The section of the and through which the proposed rising main will be routed, between the Phase 1F site proper and Moyne Road to the south, comprises bare ground. Between Moyne Road and the Mayne River the land comprises a mosaic of scrub and grassland (see Section6.3.4).

As was the case with Phases 1A, 1B, 1C, and 1D as well as 1E, the Proposed Development is in accordance with the provisions of the detailed Local Area Plan (LAP) (now expired), which set out the development framework for the overall Portmarnock South lands (see **Figure 6.1**).

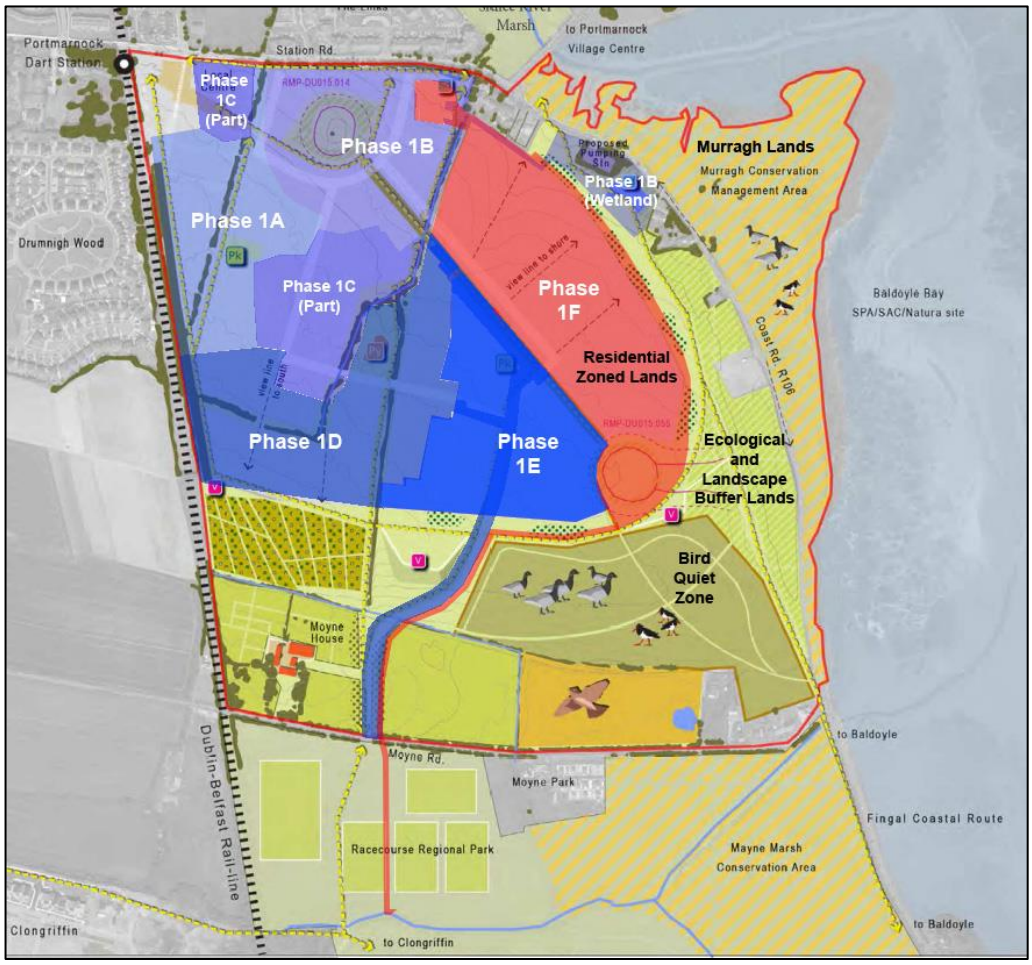

Figure 6.1 Extract from Figure 5.2 of Portmarnock South LAP – Annotated to show existing residential and wetland development areas in Phases 1A, 1B, 1C, 1D and 1E (blue shading) and proposed Phase 1F area (red shading).

6.3.2 Designated Conservation Areas

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. In other words, the existence of a source, a pathway and a receptor does not necessarily mean that a significant effect is likely.

The potential for any significant effects on European sites arising as a result of the Proposed Development was considered. Full details of that study are presented in the stand-alone Natura Impact Statement (NIS). The NIS concluded 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*. It is for the Competent Authority (Fingal County Council) to make this determination.

6.3.2.1 Relevant European sites

A number of European sites are located within the potential zone of influence[12] of the Proposed Development site at Portmarnock. These European sites are listed in Table 6.1 and are shown in Figure 6.2. Figure 6.1 (above) also shows the European sites in close proximity to the Site.

European Site (site code)	Location (closest straight-line distance from the Site at Portmarnock)[13]
Special Areas of Conservation (SAC)	
Baldoyle Bay (000199)	c.40m to the east
Malahide Estuary (000205)	c.2.7km to the north
North Dublin Bay (000206)	c.2.3km to the south
Rockabill to Dalkey Island (003000)	c.4.5km to the east
Ireland's Eye (002193)	c.4.6km to the east
Howth Head (000202)	c.5.0km to the south east
South Dublin Bay (000210)	c.7.4km to the south
Rogerstown Estuary (000208)	c.8.7km to the north
Lambay Island (000204)	c.10.7km to the north east
Special Protection Areas (SPA)	
Baldoyle Bay (004016)	c.40m to the east

[12] The Zone of Influence for European Sites is defined in detail in the Natura Impact Statement (NIS) that accompanies the application, but it comprises any site to which there is a pathway from the Proposed Development site during either the construction or Operational Phase of the development. Although there a total of 21 such sites within the *potential* Zone of Influence, only Baldoyle Bay SAC and SPA, and Malahide Estuary SPA and North Bull Island SPA are sites to which there is a pathway and the potential for significant effects. These sites are considered in extensive detail in the NIS.

[13] The red line includes the proposed rising main to the south, connecting the existing St. Marnock's Pump Station at Station Road with the North Fringe Sewer to the south.

European Site (site code)	Location (closest straight-line distance from the Site at Portmarnock)[13]
North-West Irish Sea (004236)	c. 1.4km to the east
Broadmeadow/Swords Estuary (Malahide Estuary) (004025)	c.2.9km to the north
North Bull Island (004006)	c.2.3km to the south
Ireland's Eye (004117)	c.4.4km to the east
South Dublin Bay and River Tolka Estuary (004024)	c.5.6km to the south
Howth Head Coast (004113)	c.6.4km to the south east
Rogerstown Estuary (004015)	c.9.0km to the north
Lambay Island (004069)	c.10.5km to the north east
Dalkey Islands (004172)	c.14.4km to the south
Skerries Islands SPA (Site code: 004122)	c. 17.1km to the north east
Rockabill SPA (Site code: 004014)	c. 17.4km to the north east

Table 6.1: European sites within the *potential* zone of influence.

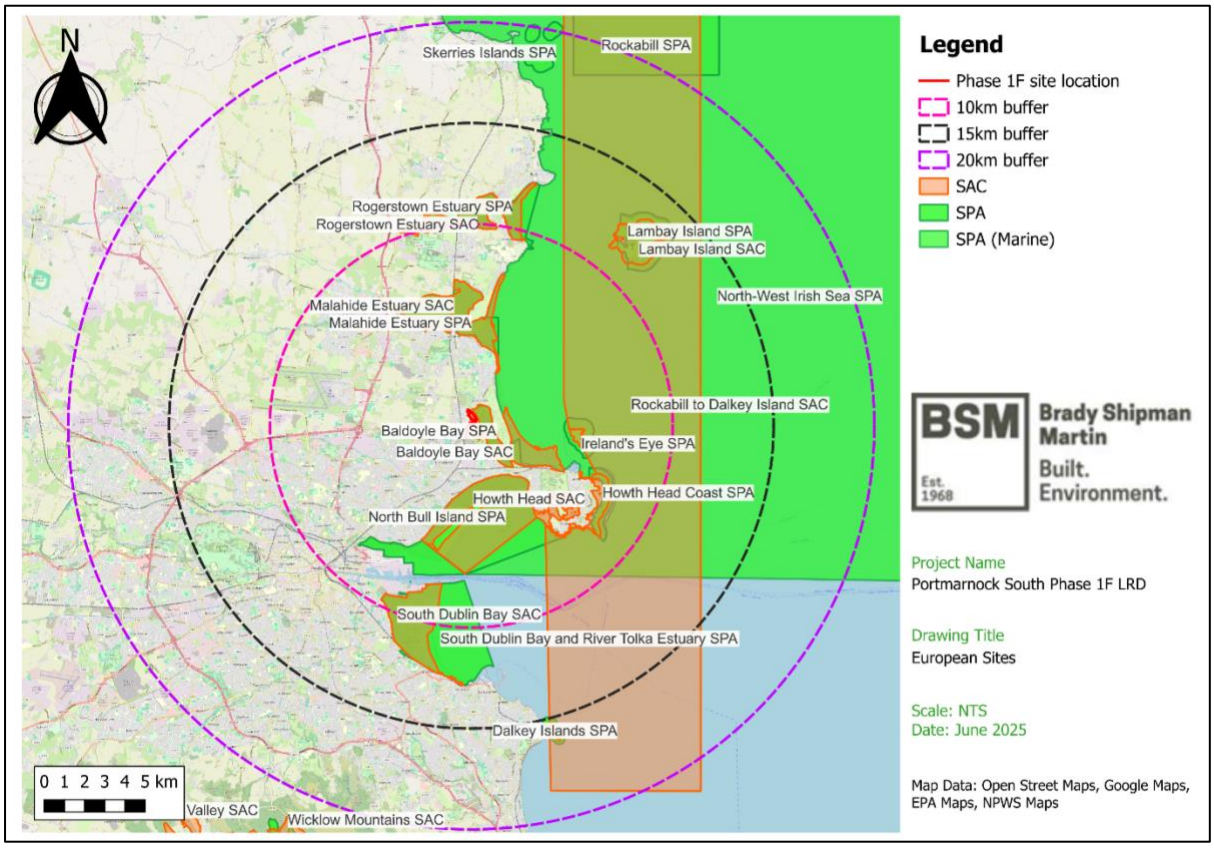

Figure 6.2: European sites within the potential zone of influence of the Proposed Development site.

As summarised in the NIS, given the location of the Proposed Development of Portmarnock Phase 1F, 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 development on the following European sites (this is set out in detail in the NIS).

- Malahide Estuary SAC;

- North Dublin Bay SAC;
- Rockabill to Dalkey Island SAC;
- Ireland's Eye SAC and SPA;
- North-west Irish Sea SPA;
- Howth Head SAC and SPA;
- South Dublin Bay;
- Rogerstown Estuary and
- Lambay Island SAC and SPA;
- South Dublin Bay and River Tolka Estuary SPA;
- Rogerstown Estuary SPA;
- Dalkey Islands SPA
- Rockabill SPA.

These sites 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;
- Impacts to habitat structure;
- Disturbance to species of conservation concern;
- Mortality to species (such as roadkill);
- Noise pollution;
- Emissions to air;
- Emissions to water.

These sites have been screened out (Appropriate Assessment Screening) and they are not considered any further in the accompanying NIS. However, due to close proximity and connection via surface water, the Proposed Development at Portmarnock; individually or in combination with another plan or project, has potential to have significant effects on the following European sites in immediate vicinity and downstream.

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 Portmarnock 1F; individually or in combination with another plan or project, has potential to have significant effect on the following European sites in immediate vicinity and downstream:

The European Sites under appraisal in the Natura Impact Statement are therefore as follows:

- Baldoyle Bay SAC;
- Baldoyle Bay SPA;
- North Bull Island SPA;
- Malahide Estuary SPA.

6.3.2.2 Other Designated Conservation Areas (other than European Sites)

In addition to the European sites, a number of other sites designated for nature conservation are present in the wider area (Figure 6.3) surrounding the site, as follows:

- Natural Heritage Areas (NHAs):
    - Skerries Island NHA (site code 004122), c. 17.1 km to the north east.
- Proposed Natural Heritage Areas (pNHAs):
    - Baldoyle Bay pNHA (Site code: 000199), c. 40m to east;
    - Sluice River Marsh pNHA (Site code: 001763), c. 370m to north west;
    - North Dublin Bay pNHA (Site code: 000206), c. 2.3km to the south east;
    - Feltrim Hill pNHA (Site code: 001208), c. 3.2km to the north west;
    - Malahide Estuary pNHA (Site code: 000205), c. 2.3km to the north east;
    - Howth Head pNHA (Site code: 000202), c. 4.8km to the south east;
    - Ireland's Eye pNHA (Site code: 000203), c. 4.6km to the east;
    - Santry Demesne pNHA (Site code: 000178), c. 6.2km to the west;
    - Royal Canal pNHA (Site code: 002103), c. 8.6km to the south west;
    - Portraine Shore pNHA (Site code: 001215), c. 6.9km to the north east;
    - Dolphins, Dublin Docks pNHA (Site code: 000201), c. 7.8km to the south west;
    - South Dublin Bay pNHA (Site code: 000210), c. 7.5km to the south;
    - Rogerstown Estuary pNHA (Site code: 000208), c. 5.9 km to the north;
    - Lambay Island pNHA (Site code: 000204), c. 10.8km to the north east;
    - Grand Canal pNHA (Site code: 002104), c. 8.9km to the south west;
    - Liffey Valley pNHA (Site code: 000128), c. 14.8km to the south west;
    - Booterstown Marsh pNHA (Site code: 001205), c. 11.0km to the south west;
    - Dodder Valley pNHA (Site code: 000991), c. 17.8km to the south west;
    - Fitzsimon's Wood pNHA (Site code: 001753), c. 16.2km to the south west;
    - Dalkey Coastal Zone And Killiney Hill pNHA (Site code: 001206), c. 12.6km to the south;
    - Loughlinstown Woods pNHA (Site code: 001211), c. 17.8km to the south;
    - Dingle Glen pNHA (Site code: 001207), c. 18.4km to the south;
    - Loughshinny Coast pNHA (Site code: 002000), c. 16.1km to the north east;
    - Bog of the Ring pNHA (Site code: 001204), c. 18.0km to the north west;
    - Knock Lake pNHA (Site code: 001203), c. 18.6km to the north west.

Note that above distances are as crow flies (i.e. linear distances).

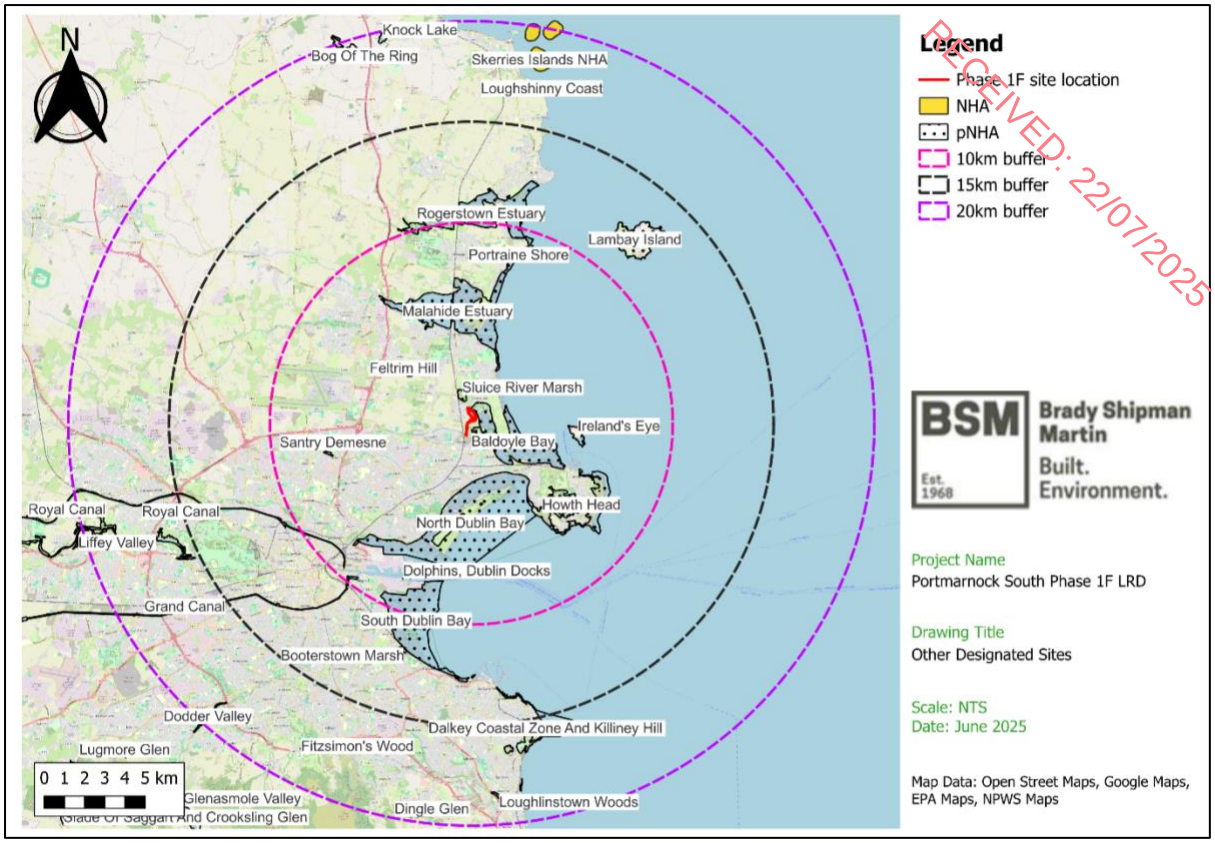

Figure 6.3: pNHA sites within the potential zone of influence of the Proposed Development site.

6.3.3 Rare and protected species

The NPWS database was consulted with regard to rare species (Curtis & McGough, 1988) and species protected under the Flora Protection Order (2022). There are records of a number of protected species within the 10km grid square (O24) that covers the Proposed Development site, including basil thyme (*Acinos arvensis*), lesser centaury (*Centaureum pulchellum*), red hemp nettle (*Galeopsis angustifolia*), meadow barley (*Hordeum secalinum*), oyster plant (*Mertensia maritima*), round prickly-headed poppy (*Papaver hybridum*), tufted saltmarsh grass (*Puccinellia fasciculata*), meadow saxifrage (*Saxifraga granulata*), annual knawel (*Scleranthus annuus*), and hairy violet (*Viola hirta*). None of these plants are known to occur within the Site itself and none have been recorded to date during any of the field surveys undertaken.

One locally rare plant, cowslip (*Primula veris*), was recorded c. 110m outside the boundary of the proposed development, in the grassland to the southeast.

6.3.4 Habitats

The site proposed for development (Phase 1F) is effectively made up of two separate areas, the wide upper section, north of the permitted and under construction Phase 1E, that will contain residential units and associated development, and the long, thin corridor that will contain the rising main connecting the existing St. Marnock's Pump Station at Station Road with the North Fringe Sewer to the south.

The following habitat types (and/or mosaics) were recorded within the study area during the field surveys in 2025:

- Amenity grassland (**GA2**)
- Dry meadows & grassy verges (**GS2**)

- Buildings and artificial surfaces (**BL3**)
- Artificial pond (currently dry) (**FL8**)
- Spoil and bare ground (**ED2**)
- Scrub (**WS1**)
- Hedgerow/Tree line **(WL1/WL2**)
- Lowland rivers (**FW2**)
- Matrix of scrub and dry meadows (**WS1** / **GS2**)
- Matrix of spoil and bare ground and recolonising bare ground (**ED2** / **ED3**)
- Current construction area matrix (**BL3** / **ED2** / **ED3** / **ED5**)

The main section of the development site is primarily dry grassland (Fossitt habitat code **GS2**) of moderate to high diversity, with areas of spoil/bare ground, recolonising bare ground, refuse/waste and artificial surfaces (**ED2**, **ED3**, **ED5**, **BL3**) that make up the existing construction compound and ongoing works area. The **GS2** habitat included species such as daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*), hawkbit (*Leontodon hispidus*), buttercup (*Ranunculus repens*), scarlet pimpernel (*Lysimachia arvensis*), ragged robin (*Silene flos-cuculi*), red campion (*S. dioica*), corn marigold (*Glebionis segetum*), yarrow (*Achillea millefolium*), vetches (*Vicia* Spp.), thistles (*Cirsium* spp.), docks (*Rumex* spp.), red clover (*Trifolium pratense*), white clover (*T. repens*), and alexanders (*Smyrnium olusatrum*). In the northern half of the upper section (on the eastern side of the hedgerow) exists a small artificial pond (**FL8**) used for storm water retention and surrounded by a high vegetated bank. At the time of the survey the pond was completely dry. At the southern end of the upper section is a fenced-off circular area (the archaeological site) of primarily willow (*Salix* spp.) and bramble (*Rubus fruticosus* agg.) scrub (**WS1**), approximately 1.0ha in area.

- The grassland habitat is considered to be of Local importance (higher value) due to the species diversity present. The other habitats including the construction compound, built surfaces, and ongoing works are of negligible importance.

The corridor linking the proposed Phase 1F development site to the North Fringe Sewer Comprises bare ground (**ED2**) in the section to the north of Mayne Road, and a scrub/grassland matrix to the south of Mayne Road (**WS1, GS2**). The River Mayne (**FW2**) runs west to east through the southern scrub/grassland matrix.

- The northern bare ground is of negligible importance, while the southern scrub/grassland matrix is considered to be of Local importance (higher value) due to the presence of the River Mayne ecological corridor.[14]

Further east and to the south/south east of the Proposed Development site of Phase 1F, the site wider lands at Portmarnock South includes former agricultural land which is now within the landscape and ecological buffer areas (previously transferred to Fingal County Council) which enclose the residential zoned lands. These areas include the Bird Quiet Zone (to the south) and the Ecological Buffer Zone (to the east).

[14] It is important to note that this area is located within the Fingal County Council Racecourse Park development, permitted by An Bord Pleanála. A series of playing fields and a greenway, connecting north will be located in this area.

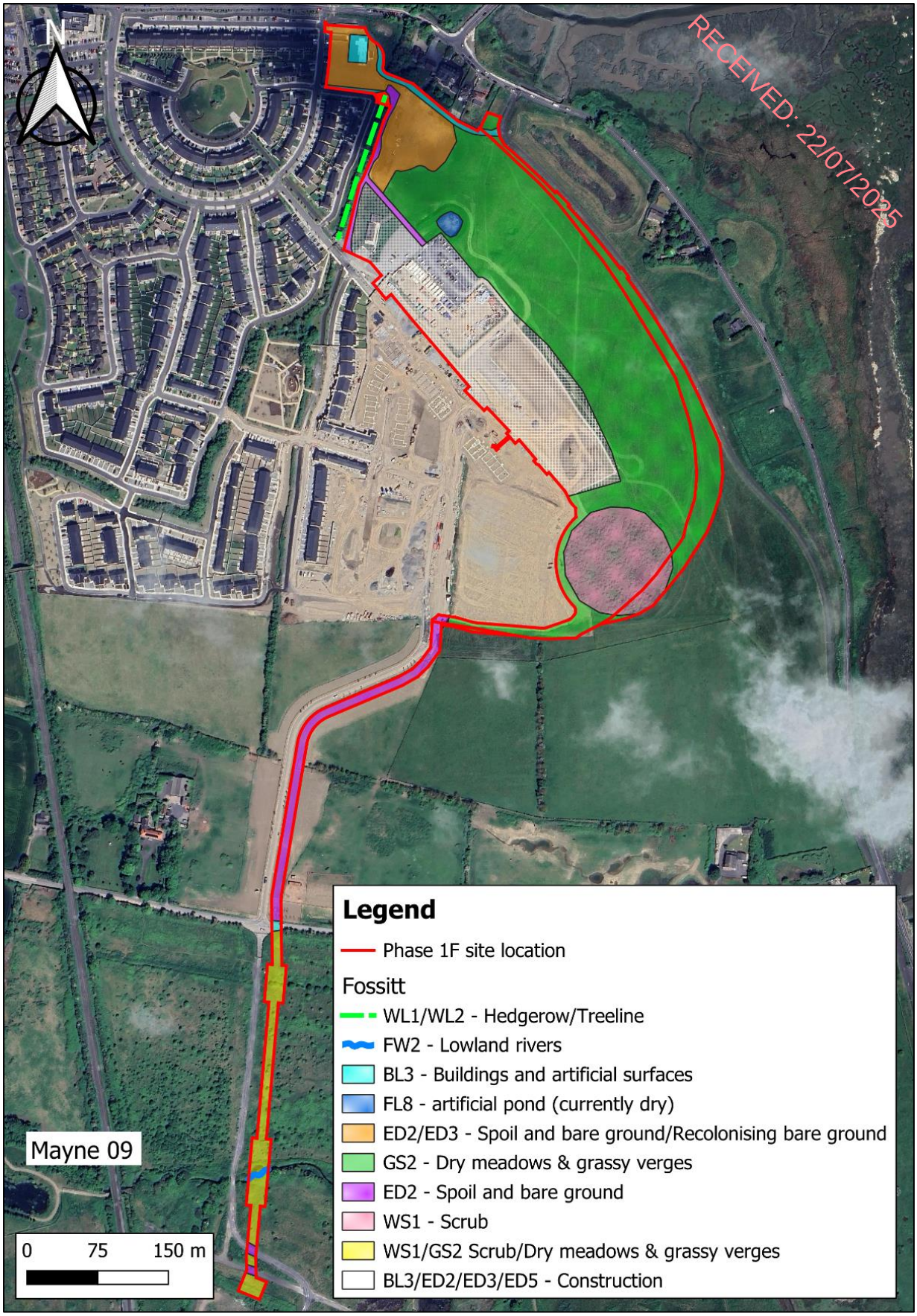

Figure 6.4: Habitat map for the proposed Phase 1F development – including the link to the North Fringe sewer (source: OpenStreetMap).

6.3.5 Fauna

6.3.5.1 Bats

All Irish bat species are fully protected under the *Wildlife Act* 1976 as amended, and under the *EU Habitats Directive*, via the *European Communities (Birds and Natural Habitats) Regulations 2011*, as amended. The retained trees and hedgerows within the wider Portmarnock South Lands, in particular along the townland boundary that has been retained as part of Phases 1D and 1E, under construction, and Phase 1F, the current application) are suitable for use by commuting and foraging bats.

A total of four bat species (common pipistrelle, soprano pipistrelle, Leisler's bat and brown long-eared bat) have been recorded foraging on the LAP lands during the surveys undertaken since 2021.

The 2025 surveys (July 2025) recorded three species (Leisler's bat, common pipistrelle and soprano pipistrelle) on the site, including along the line of the proposed rising main as it crosses the River Mayne.

No trees or buildings within the perimeter of the proposed works for this phase of development bore any potential for bat roosting. All trees were too immature to support roosting.

Bat activity was low on the first night (7 July 2025) and moderate on the second night of survey (10 July 2025), with more pipistrelle activity to the south and Leisler's bat activity to the north section of the overall site.

The survey conducted at dawn on 8 July 2025 recorded Leisler's and common pipistrelle activity to the south of the Phase 1F residential development site

While reasonable bat activity was recorded site wide, the majority of activity in the northern area of the site was commuting across the site rather than feeding which indicates the proposed works will cause a minimal disturbance provided lighting is managed. More feeding and commuting was recorded in the corridor areas (that is – the route of the proposed rising main) however little development is planned for this area.

None of the areas proposed for works contain elements with roosting potential in this phase of development.

There are only very limited roost opportunities in trees within the overall Portmarnock South lands (primarily in the trees retained as part of the open space network) and as has been observed, no bats were noted to enter or emerge from any trees. Natterer's bat activity was absent from the Site having been observed along Railway Road and the fields here previously (in surveys undertaken for previous developments).

6.3.5.2 Birds

Birds, as well as their nests and eggs, are fully protected under the *Wildlife Act 1976* as amended.

The overall (expired) Portmarnock South LAP lands are of value for a range of bird species, and small numbers of the red-listed (high conservation concern on the list of Birds of Conservation Concern in Ireland 2020 to 2026[15]) kestrel, oystercatcher, golden plover, lapwing, black-tailed godwit, curlew, meadow pipit and redwing, as well as the amber-listed (medium conservation concern) lesser black-backed gull, skylark, barn swallow, house martin, mallard, black-headed gull, common gull, herring gull, northern wheatear, willow warbler, goldcrest, starling and linnet have all been recorded in surveys undertaken in the preparation of the current planning application (in surveys covering the Phase 1F area as well as the lands to the south – the Bird Quiet Zone and Ecological Buffer Zone) (see Appendix 6.1). In addition, light-bellied Brent goose has been recorded, but only flying over the Site. However, the Site proposed for development is unsuitable for use by grazing light-bellied Brent geese. None were found on the lands.

[15] Gilbert *et al*. (2021)

As set out in the extensive bird surveys that have been carried out at the Site small numbers of waders and other birds are regularly recorded in the Portmarnock South lands. The Proposed Development site at Phase 1F is of no importance as a significant feeding site for the bird species (the Special Conservation Interests) associated with Baldoyle Bay SPA (and, given the complex and interlinked relationships between the birds and their habitat use throughout the wider area of the Dublin coastline and beyond, the SCIs of North Bull Island SPA and Malahide Estuary SPA). The Proposed Development site is within a field that is already partly developed and heavily disturbed and contains no habitats (such as amenity grassland or managed agricultural grassland) likely to be used even occasionally by light-bellied Brent geese.

As set out in Section 6.2.2 (see also Appendix 6.1) in the course of preparing the documentation for this planning application, three full seasons of winter bird surveys were undertaken on the Portmarnock South lands (winter 2022/2023, winter 2023/2024 and winter 2024/2025). In addition, a full breeding bird survey of the lands took place in 2023, with an early season survey also taking place in April and May 2024, and further surveys between May and July 2025. Including the lands to the south of Moyne Road, the lands have been visited by the specialist ornithologist over 60 times in the preparation of this and previous EIAR chapters.

As noted in Appendix 6.1A and B the data gathered from the 40+visits between November 2022 and April 2023 and the suggests that light-bellied Brent geese probably did not use the Moynetown lands to graze during that period. No light-bellied Brent geese were seen on the lands but were seen in flight close to the lands during the survey period. No geese droppings were found on the lands either. Brent geese have been observed on these lands by the author during previous winters – within the Bird Quiet Zone.

A total of 35 common bird species of Ireland were recorded on or over the land between October 2023 – March 2024 and October 2024 – March 2025. See Appendix 6.1B seven red-listed species (of high conservation importance) were recorded. Eight species of medium conservation concern, (Amber listed), were recorded. The remaining 20 species recorded were of least conservation concern, (Green listed).

During thirteen breeding bird surveys between April and early August of 2023, April and May of 2024 April and early July of 2025 36 species of common birds were recorded on the lands three of which were red and eight were amber listed species. The remaining 24 species were green listed. Seven bird species were confirmed to breed, and seven were probably breeding. A further thirteen species were identified as possible breeding species on the survey lands as they were in suitable habitat and/or males were often heard singing. See Appendix 6.1C.

During the 6 visits to the lands south of Moyne Road between April and July 2025 38 species of common birds were recorded on the lands four of which were red and ten were amber listed species. The remaining 24 species were green listed. Seventeen bird species were confirmed to breed, and two were probably breeding. A further thirteen species were identified as possible breeding species on the survey lands as they were in suitable habitat and/or males were often heard singing.

The data collected confirms that light-bellied Brent geese probably did not use the Moynetown lands to graze during the survey periods. No light-bellied Brent geese were seen on the lands. From the visits and observations made during those visits, it was established that several waterbird species such as little egret, moorhen, curlew, snipe, black-headed gull, common gull, and herring gull do frequent the wider lands to forage. Most of the foraging and roosting waterbirds were observed on the building site and in or close to the sheep and cattle grazing area (the Bird Quiet Zone) however moorhen and snipe were not found there. Snipe were found in many areas of the lands always in small numbers and usually in an area of rank sward or close to wet areas. Moorhen was only found in the attenuation pond at the northeastern boundary of the lands (i.e. the Regional Wetland).

The wider Portmarnock South lands hold good numbers of red listed meadow pipit and amber listed skylark during the winter and many of these birds may attempt to breed on the lands later in the year. Small numbers of red listed yellowhammer and amber listed tree sparrow were also observed on two occasions. Both of these species had not been observed on the lands for several years and probably returned following the planting of a cereal crop in 2023. Otherwise, the lands hold small numbers of

common amber and green listed bird species, some of which may attempt to breed in areas of scrub or hedgerows throughout the lands.

No Light-bellied Brent were observed on the lands during any of the survey visits and none of their droppings were found there either.

6.3.5.3 Other fauna

Badgers are fully protected under the *Wildlife Act 1976 as amended*. No signs of badgers have been recorded since surveys were first carried out at Portmarnock South in 2016. No signs of badger activity were recorded on the Site in 2023 or 2025, this finding is consistent with the results of all of the previous surveys.

While otters are known to frequent the shoreline in Baldoyle Bay, and along the River Mayne, no evidence of otters, protected under the *Wildlife Act 1976 as amended*, and under the *EU Habitats Directive*, via the European Communities (Birds and Natural Habitats) Regulations, 2011 as amended, has been recorded. With the exception of the River Mayne (i.e. where the rising main will cross under the river) the habitats are not suitable for the species.

No amphibians (common frog and smooth newt) have been observed during the surveys undertaken to date at Portmarnock South. Nevertheless, even minor wet areas and temporary ponds may be of value for amphibians, in particular during the spring breeding season. Similarly, no evidence of common lizard has been recorded, however, it is possible that lizards may occur within the Site, although the area of suitable habitat (such as exposed rock) is limited.

Amphibians and reptiles are fully protected under the *Wildlife Act 1976 as amended.*

The Site was assessed for the presence of butterflies and for the suitability of the habitats for butterfly abundance and diversity. Since 2016 four butterfly species, small tortoiseshell, red admiral, ringlet and meadow brown have been recorded on the Site. However the Site is of only limited value for lepidoptera.

6.3.6 Overall Evaluation of the Proposed Development Site

A Key Ecological Receptor is defined as any feature valued between Local Importance (Higher Value), such as sites containing semi-natural habitat types with high biodiversity in a local context, or populations of species that are uncommon in the locality, and International Value (such as a European site). Features of local importance (Lower Value) and features without ecological value are not considered to be Key Ecological Receptors in this context.

Overall, the majority of the Phase 1F lands are, botanically, species poor, with no significant habitats present, other than the grassland on the northern part of the subject site (and the southern scrub/grassland matrix and the River Mayne ecological corridor).

The subject site is adjacent to the existing landscape and ecological buffer lands under the management of Fingal County Council, which comprises the Ecological Buffer Zone (to the east and south/south east) and the Bird Quiet Zone (within the Ecological Buffer Zone to the south), together with the arable field and other habitats (to the south and southwest of the Bird Quiet Zone and north of Moyne Road). The site is not of significant value for fauna – including bats, large mammals and all other species groups.

The Proposed Development site itself, though it is in a prominent location near to Baldoyle Bay, is not under any wildlife or conservation designation. It is zoned for residential development such as that proposed in this planning application. 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 Habitats Directive, are known to occur within the Site and none have been recorded. No rare habitats or habitats of particularly high ecological value (i.e. International, National or County) are present at the Site. However, the site context is sensitive, being close to Baldoyle Bay.

No evidence of roosting bats, badgers, reptiles or amphibians has been recorded and no significant features suitable for use by these species was recorded on or in the vicinity of the Site. The grassland

on the site, and the townland boundary running through the centre of the adjacent Phase 1D lands, and to the west of Phases 1E and 1F, are the only feature of any ecological interest in the immediate vicinity. That hedgerow/tree line is to be retained and incorporated within proposed open space (Skylark Park and Linear parks – as per the LAP) and will continue to be protected during the construction of Phase 1D, 1E and 1F.

The overall (expired) Portmarnock South LAP lands are of value for a range of bird species, and small numbers of the red-listed kestrel, oystercatcher, golden plover, lapwing, black-tailed godwit, curlew, meadow pipit and redwing, as well as the amber-listed lesser black-backed gull, skylark, barn swallow, house martin, mallard, black-headed gull, common gull, herring gull, northern wheatear, willow warbler, goldcrest, starling and linnet have all been recorded in surveys undertaken in the preparation of the current planning application (in surveys covering the Phase 1F area as well as the lands to the east and south – the Bird Quiet Zone and Ecological Buffer Zone) (see Appendix 6.1). In addition, light-bellied Brent goose has been recorded, but only flying over the Site. However, the Site proposed for development is unsuitable for use by grazing light-bellied Brent geese. None were found on the lands.

Overall, despite its location adjacent to Baldoyle Bay, with the exception of the grassland habitat (of Local Importance (higher value)) the Site is of no more than Local Importance (Lower Value), in accordance with the ecological resource valuations presented in the National Roads Authority Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA/TII, 2009 (Rev. 2)).

Full details of the European sites of Baldoyle Bay and further afield are addressed in the NIS which accompanies the application.

Sluice River Marsh pNHA includes a total of seven notable habitats, including wet willow-alder wetland, reedbed and swamp, wet grassland, marsh and upper saltmarsh. The nationally rare curved hard grass (*Parapholis incurva*) is known from the Site, which is also utilised by a number of bird species in winter, including light-bellied Brent geese, redshank, bar-tailed godwit, little egret, kingfisher and merlin. The bird species that utilise the Sluice River Marsh pNHA are likely to form part of the overall bird assemblage of Baldoyle Bay SPA and are therefore considered in the accompanying NIS. Given its location relative to the Proposed Development area it is not considered remotely likely that the other habitats and species within and associated with this pNHA will be impacted upon.

The Portmarnock South lands are of value for a range of bird species. Small numbers of red and amber listed species have been recorded. The Portmarnock South lands are of value for the birds, and as a whole, the lands can be classified as being of Local Importance (Higher Value).

The southern part of the Phase 1F site is currently in use as a construction compound to facilitate the ongoing development of the permitted Phase 1E development. The northern part of the site remains a former arable field.

Meadow pipit (red-listed) and skylark (amber-listed) were confirmed to breed in the Portmarnock South lands in 2023, but no nests were found in the Phase 1F lands themselves, and the disturbed nature of the Phase 1F lands, coupled with its proximity to the Phase 1E construction compound area renders the site of only limited suitability for these species. The Phase 1F land is of only limited suitability for breeding birds, or for waders such as curlew and lapwing – which have been recorded in very low numbers.

Table 6.2, below, shows the numbers of each waterbird species found on the 1F Lands during each survey visit, together with National and International thresholds numbers for those species. If those threshold numbers are exceeded, then the site can take on national or international importance for that species. However, as can be seen from the table those thresholds were not exceeded and the numbers recorded were just a very small percentage of those threshold figures.

Bird Species	Herring Gull	Lesser Black-backed Gull	Great Black-backed Gull	Black-headed Gull	Common Gull	Brent Goose	Mallard	Lapwing	Golden Plover	Oyster-catcher	Redshank	Corlew	Black-talied Godwit	Grey Heron	Snipe
Nationally Important Numbers	No figure Given	No figure Given	No figure Given	No figure Given	No figure Given	350	280	850	920	610	240	350	200	25	No figure Given
Inter-Nationally Important Numbers	14.4k	5.5k	3.6k	31k	16.4k	400	53k	73.3k	9.3k	8.2k	760	7.6k	1.1k	5k	100k
Date	HG	LB	GB	BH	CM	PB	MA	L.	GP	OC	RK	CU	BW	H.	SN
20/03/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
19/02/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/02/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28/01/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/01/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13/12/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/12/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20/11/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30/10/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06/05/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16/04/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/02/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/01/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/12/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/11/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02/10/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01/08/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12/07/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20/06/2023	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08/06/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25/04/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17/04/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13/04/2023	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
03/04/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30/03/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20/03/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
14/03/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07/03/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
27/02/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22/02/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13/02/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/02/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/02/2023	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
27/01/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19/01/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12/01/2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06/01/2023	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1
03/01/2023	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
29/12/2022	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16/12/2022	0	0	0	0	0	0	0	0	22	0	0	0	0	0	2
14/12/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02/12/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
22/11/2022	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
16/11/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28/10/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18/10/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

07/10/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23/03/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14/03/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
26/02/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/02/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Table 6.2. Numbers of Waterbird Species found on the Portmarnock South Phase 1F Development Lands, during the course of winter bird surveys carried out between February 2022 and March 2025[16].

[16] Nationally and internationally Important Numbers of Waterbirds were taken from NPWS, "Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10 to 2015/16" which is the most up to date publication (published in 2019). https://www.npws.ie/sites/default/files/publications/pdf/IWM_106_Irelands_Wintering_Waterbirds.pdf

The Ecological Buffer Zone and the Bird Quiet Zone are managed by Fingal County Council to provide habitat for birds. In addition to this, the lands to the south of the development lands and the Bird Quiet Zone (i.e. the fields north of Moyne Road, are also managed for biodiversity, providing arable and hedgerow habitat, used by red-listed birds (including meadow pipit, redwing and yellowhammer) and amber-listed birds (including skylark and starling). The management of the lands outside of the Phase 1F lands is subject to regular review by Fingal County Council in order to ensure that the biodiversity value, and habitat suitability, for birds and other receptors, is maximised.

In summary, the Phase 1F lands are adjacent to an area of ecological importance that is and will continue to be managed for birds. The development lands themselves however, remain of no more than Local Importance (Lower Value) for birds. This is consistent with the definitions of ecological valuations at different geographical scales presented in the National Roads Authority Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA/TII, 2009 (Rev. 2)).

The proposed Phase 1F development follows the established development strategy set out in the Portmarnock South LAP, (now expired), and all required mitigation measures, such as the provision of a large area of ecological buffer/parkland, the remediation of the Murrough Spit, the creation of the Bird Quiet Zone and the provision of an arable plot and retention of an existing small attenuation pond between the Bird Quiet Zone and Mayne Road have been successfully implemented.

6.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

The Proposed Development will comprise of the construction of a new residential scheme and associated infrastructure.

This proposed Portmarnock Phase 1F development is in the previously designated Portmarnock South LAP lands to the southeast of the Portmarnock DART station. The Phase 1F development is the sixth phase of a multi-phase development which commenced construction in 2016. Phases 1A, 1B and 1C are complete, Phase 1D nearing completion and Phase 1E was granted permission in December 2024.

The development will consist of 296 residential units, associated roads, landscaping and services. A rising main which will connect the existing interim wastewater pumping station (in the north of the residential development) to the North Fringe Sewer (to the south of Mayne Road in the Racecourse Park Lands) is also proposed. The proposed rising main and interim St. Marnock's Pumping Station will be decommissioned, and these lands will then discharge by gravity to a proposed new Uisce Éireann Pumping Station adjacent to Portmarnock Bridge when same is completed.

6.5 POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

6.5.1 Previous Development

Each element of development at Portmarnock South LAP has, to date, conformed to the Objectives and Policies of the *Portmarnock South Local Area Plan (2013 (extended to 2023 and now expired))* and the *Fingal Development Plan 2017-2023*, now superseded by the current *Fingal Development Plan 2023 – 2029*.

Portmarnock South LAP had at its core a requirement to provide new, high quality urban residential development while protecting and enhancing the existing biodiversity features of the area, as well as maintaining the integrity of the European sites of Baldoyle Bay. These objectives have already been implemented, as part of developments under Portmarnock Phases 1A, 1B, 1C and 1D and 1E (under construction). This includes habitat protection measures in the ecological buffer zone (Phase 1A) and the delivery of new surface water management infrastructure (Phase 1B, incorporating Sustainable urban Drainage Systems (SuDS). This infrastructure includes a SuDS-designed wetland which is located within the eastern section of the ecological buffer zone, as well as filter strips, swales, green roofs, porous paving and bio-retention areas which have been provided throughout the Phase 1A, 1B, 1C, 1D and 1E developments.

The new SuDS regional wetland, which is fully operational, outfalls to Baldoyle Estuary. It is designed to serve the majority of the LAP area (which provides for up to 1,200no. residential units). This is in compliance with *LAP Objective GI 43 (Ensure the early completion of the proposed regional SuDS wetland)*. The wetland has been designed for the benefit of biodiversity and incorporates a permanent area of water, with a maximum depth of c. 600mm. A detailed wetland planting scheme for the water body, comprising native wetland (aquatic and marginal aquatic) species appropriate to the Site, was agreed with Fingal County Council and has been undertaken on site.

The significant measures that have been undertaken and the areas that are currently being managed for wildlife and that stem from the Portmarnock South LAP (such as the bird quiet zone and the Murragh spit) will ensure that potential 'in-combination effects' potentially arising out of the full implementation of the LAP and other projects will not result in the loss of feeding habitat for the Special Conservation Interests of the SPA, in particular the light-bellied Brent geese, an Internationally important population of which is associated with these SPAs.

6.5.2 Proposed Development

6.5.2.1 Construction Phase

Designated Conservation Areas (European sites)

Refer to the Section 4.3 of the Natura Impact Statement.

Water Quality, Dust and Other Emissions

Estuaries and coastal sites such as Baldoyle Bay 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 and site clearance activities may include suspended solids, hydrocarbons and concrete/cement products. If not properly managed, such pollutants could pose a temporary risk to surface water quality in local watercourses during the Site clearance and Construction Phases. Also, during the Construction Phase, including the construction of the rising main (and the crossing of the River Mayne by direct drilling) 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 Regional Wetland.

In addition, there is a potential risk to flora and fauna arising from dust deposition, which in extreme cases can inhibit photosynthesis in plants and can increase turbidity in watercourses. Construction dust tends to be deposited within 350 m of a construction site[17], with the majority of the deposition occurring within the first 50 m. The extent of any dust generation depends on the nature of the dust (soils, peat, sands, gravels, silts, etc.) and the nature of the construction activity. Due to the overall site area and scale of the development involved, there is the potential for significant dust soiling 100 m from the source. There is also the potential for traffic emissions to impact air quality in the short-term over the Construction Phase, particularly due to the increase in HGVs accessing the Site.

- Given the nature, scale and duration of the Construction Phase for the Proposed Development, albeit unlikely, there is the potential for temporary slight negative impacts on water quality arising during the Construction Phase of the Proposed Development.

Habitat Loss

The Proposed Development will result in the removal of an area of spoil, bare ground and recolonising bare ground, as well as the removal of an area of grassland. These features will be replaced with new residential development in compliance with the land zoning as well as new, biodiversity-focused landscaping.

- In the absence of mitigation the habitat loss will result in a long-term to permanent, slight to moderate negative impact at a site level.

Disturbance to / loss of Habitat within the Site

The Proposed Development will involve the removal of much of the existing area of the Site and its replacement with residential development, open space/landscaping and infrastructure. This has the potential to impact on breeding birds, and foraging/commuting bats due to loss of foraging areas, breeding habitat and commuting pathways. No roosting bat species were identified within the Site boundary and no impacts on roosting bats are expected.

The Proposed Development follows the development strategy set out in the Portmarnock South LAP, now expired, and all required mitigation measures, such as the provision of a large area of ecological buffer/parkland, the remediation of the Murrough Spit, the creation of the Bird Quiet Zone and the provision of an arable plot and retention of an existing small attenuation pond between the Bird Quiet Zone and Mayne Road have been successfully implemented (see Section 6.6.1)

There will be no impacts on the river Mayne as a result of the installation of the proposed rising main. Where it crosses the river this pipeline will be constructed using a trenchless system (direct drilling, with access chambers set back from the river (refer to the CEMP prepared by Evara and submitted

[17] https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-dust-2023-BG-v6-amendments.pdf

under separate cover). The disturbance to the land required to install the rising main will be temporary (cut and cover).

- In the absence of mitigation the habitat loss will result in a long-term to permanent slight to moderate negative impact on breeding birds at a site level.
- There will be no significant impacts on ecological receptors such as commuting or foraging bats as a result of the Proposed Development. There will, further, be no significant impacts on badgers and other large mammals, amphibians, reptiles, lepidoptera or other species groups as a result of the Proposed Development.

Lighting

Lighting during the Construction Phase will be limited to the Site compound and residential development areas only.

- It is not expected that there will be any significant impacts on bats or any other protected species.

6.5.2.2 Operational Phase

Impacts of Lighting from the Development

Lighting can affect different species to varying degrees and within species there is also a range of responses to introduced light ranging from minimal effects to complete avoidance. Bats may actively avoid artificial lighting, especially if it is shining upon a roost site. There are no bat roosts within the Site, however, bats (three species) commute through and forage at the Site.

- Lighting from the Proposed Development during the Operational Phase may, unmitigated, have a permanent, moderate, negative impact upon bats.

Loss of, or Disturbance to, Habitat within the Site

As noted in Section 6.5, the Proposed Development will involve the removal of much of the existing vegetation at the Site and its replacement with residential development, open space and infrastructure. However, the landscaping will include significant, biodiversity-focused planting.

The Proposed Development site (i.e. the Phase 1F land) is of no importance as a feeding site for the bird species (the Special Conservation Interests) associated with any European site. However, the grassland is of local importance for the breeding birds present on the Site.

The loss of existing vegetation from the Site may also affect commuting bats, by removing cover that allows commuting along the unlit field boundaries. It may also affect feeding for bats by reducing the habitat for their invertebrate prey.

- Given the nature, scale and duration of the Operational Phase for the Proposed Development, there is the potential for long-term to permanent, moderate, negative impacts on the local fauna due to change of land use.
- There will be no significant impacts on amphibians, reptiles and lepidoptera.

Discharges to Surface Water from the Proposed Development

Once operational, the Proposed Development could have impacts on water quality, as there is potential for surface water runoff to contain contaminants such as petrol and oil from vehicles and other contamination. However, the development will be in full compliance with all legislative requirements and best practice guidance. Contamination of water from foul water, hydrocarbons, silt or other pollutants will not be allowed. Provided that site facilities are correctly designed and proper working procedures are strictly adhered to, no impacts on existing watercourses are expected, either during the construction or operation of the Proposed Development. The regional wetland, to which Phase 1F will be connected, is operational in compliance with the planning conditions related to the

Phase 1B development. This will ensure that there will be no long term impacts on surface water quality once the Proposed Development is operational.

Discharges to Foul Sewer from the Proposed Development

It is intended to connect the foul sewerage from the proposed 296 residential units of this Phase 1F development to the existing foul sewer network in the Portmarnock South lands (to the north and west of this proposed development and constructed under previous phases). The connection (via 1 individual connection point) will be to the previously constructed interim foul pumping station, constructed originally as part of the Phase 1B development, but significantly upgraded under the Phase 1D development and currently being commissioned.

Full details are as set out in detail in the Water Services Report (Egis Ltd.) that accompanies the planning application and is submitted under separate cover. the lands in Portmarnock South lie within the North Fringe Sewer catchment, which discharges to the Ringsend Wastewater Treatment Plant, which is undergoing significant upgrades.

The Ringsend WwTP operates under licence from the EPA (Licence no. D0034-01) and received planning permission (ABP reg. ref.: 301798) in 2019 for upgrade works, which commenced in 2018 and are expected to be fully completed by 2025. The upgrade works will result in treatment of sewage to a higher quality than current, thereby ensuring effluent discharge to Dublin Bay will comply with the Urban Wastewater Treatment Directive by 2025.

- Significant impacts 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 and hence no mitigation is required.

6.5.2.3 Do-Nothing Impact

As noted in this EIAR, the Proposed Development site is of local ecological importance. Should the Site remain undeveloped, and the current uses continue, no significant changes to the biodiversity value of the Site can be expected.

However the area is zoned for residential development. As such, development is highly likely to take place at the Site, sooner or later. Should the Site be re-developed at a later stage, it is reasonable to expect that any potential impacts would be similar to those predicted to arise as a result of the Proposed Development.

6.5.3 Cumulative Development

Neither the development proposed nor any other developments will give rise to any significant impacts on biodiversity and there are no predicted cumulative impacts in relation to biodiversity, for example in terms of habitat loss or disturbance to protected species, as a result of the Proposed Development in combination with existing / proposed plans or projects.

6.6 MITIGATION MEASURES (AMELIORATIVE, REMEDIAL OR REDUCTIVE MEASURES)

6.6.1 Previous works

As part of the Phase 1A development, and again in accordance with the provisions of the LAP, now expired, significant mitigation measures were put in place, both within the Phase 1A land itself, and within the wider lands covered by Portmarnock South LAP. These included the following, which were designed to mitigate any potential impacts on the Special Conservation Interests and Qualifying Interests of Baldoyle Bay SPA and SAC resulting from residential development to be delivered as part of the Portmarnock South Local Area Plan:

- Provision of a large area of Ecological buffer/parkland, located between residential zoned lands within the LAP to the west and the boundary with Coast Road to the east and with Mayne Road to the south;

- Provision of a 'Quiet Zone' for birds, in the southern part of the Portmarnock South Local Area Plan lands;
- Provision of an arable plot and retention of an existing small attenuation pond located between the above 'Bird Quiet Zone' and Mayne Road;
- Clearing of bramble scrub and reseeding of areas to grassland within the Murragh Spit east of the R106 Coast Road (within Baldoyle Bay SAC and SPA), undertaken in 2016 and 2017. This was undertaken, in agreement with Fingal County Council and NPWS, to provide additional areas of foraging habitat for bird species, in particular overwintering light-bellied Brent geese;
- Treatment of invasive species listed on Schedule 3 of the Birds and Habitats Regulations, SI. 477/2011 as amended, specifically a small area of Japanese knotweed (*Reynoutria japonica*) on the Murragh Spit and giant hogweed (Heracleum *mantegazzianum*) located within the Phase 1A lands. No growth of these species has been observed in recent years, nevertheless the Site will continue to be managed during future Construction Phases to ensure full and permanent eradication of these plants.

These measures have all been implemented and are subject to ongoing management, including mowing of the reseeded grass areas within the Murragh so as to ensure that the sward length is suitable for foraging light-bellied Brent geese.

Failed sections of the hawthorn hedging that was planted around the perimeter of the Bird Quiet Zone were replanted in early 2024.

In compliance with planning conditions for the Phase 1A and Phase 1B developments, the ecological buffer lands have been handed over to Fingal County Council. This has enabled Fingal County Council to take full charge of the long-term management of the ecological buffer area and bird quiet zone.

6.6.2 Proposed Development

6.6.2.1 Construction Phase

Designated Conservation Areas

Specific mitigation measures for the European sites are contained within the accompanying NIS (see Section 4.4 of the NIS) and the Construction and Environmental Management Plan (prepared by Quintain Developments Ireland Ltd) for the Proposed Development. These include strict measures to ensure the protection of water quality as well as measures to ensure no impact outside the working area and in particular on the habitats and bird species that form the Qualifying Interests and Special Conservation Interests of Baldoyle Bay SAC and SPA.

No mitigation measures are required to prevent any impacts on Sluice Marsh pNHA.

Water Quality, Dust and other Emissions

Where applicable the following measures will be implemented for stripping of topsoil, excavation of subsoil layers, surface water runoff, dust suppression and accidental spills and leaks: These will reduce the potential for *temporary, slight, negative* impacts to *temporary, not significant* and *neutral*.

- Stripped topsoil and excavated subsoil stockpiles will be protected for the duration of the works and located away from the areas where sediment laden runoff has potential to enter the existing ditches. Typical seasonal weather variations will also be taken account of when planning stripping of topsoil and excavations with an objective of minimising soil erosion and silt generation.
- Measures such as sediment retention ponds, silt fencing, hydrocarbon interceptors, surface water inlet protection and earth bunding adjacent to open drainage ditches will be implemented to capture and treat sediment laden surface water runoff.
- Surface water runoff from areas stripped of topsoil, surface water collected in excavations or discharge from any vehicle wheel wash areas will 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. On-site settlement ponds are to include geotextile liners and rip-rapped inlets and outlets to prevent scour and erosion. Monitoring of these sediment control measures will be undertaken throughout the Construction Phase.

- Wash down and wash out of concrete trucks will take place off-site.
- All oils, fuels, paints and other chemicals will be stored in a secure, bunded, hardstand area. These areas shall be bunded to a volume of 110% of the capacity of the largest tank/container within the bunded area(s) (plus an allowance of 30 mm for rainwater ingress). Drainage from the bunded area(s) shall be diverted for collection and safe disposal.
- Refuelling and servicing of construction machinery will take place in a designated hardstand area that is also remote from any surface water inlets (when not possible to carry out such activities off-site). A response procedure will be put in place to deal with any accidental pollution events. Spill kits will be available and construction staff will be familiar with the emergency procedures and use of the equipment. Monitoring of all fuel / oil storage areas will be undertaken.
- Foul drainage discharge from the construction compound will be tinkered off-site to a licensed facility until a connection to the public foul drainage network has been established.
- To prevent emissions to air, vehicle wheel wash facilities will be installed in the vicinity of any site entrances and road sweeping will be implemented, as necessary, in order to maintain the road network in the immediate vicinity of the Site. Also, dust suppression measures (e.g. dampening down) will be implemented, as necessary, during dry periods.
- Further, material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods. During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.

Habitat Loss Add Disturbance to Species

All construction works will comply with legislative requirements and best practice as well as the Fingal Development Plan 2023 – 2029. All works will be in compliance with the Outline Habitat Management Plan (see Appendix 6.3) and the Landscape Design Statement (prepared by Brady Shipman Martin and submitted separately).

All site clearance and landscaping works will comply with current legislative requirements and best practice. In particular, where it is intended to retain trees within the development, that is along the townland boundary, trees to be retained will be treated in accordance with British Standard *BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations*, with protective fencing being installed prior to commencement of development.

The planting proposed for the development will, wherever possible, comprise an appropriate mixture of native trees and shrubs, preferably of local provenance (refer to the accompanying drawings: Brady Shipman Martin drawing no. 7173-300 series). The planting will also incorporate a range of species that will attract feeding invertebrates, including moths, butterflies and bees. It will take account of and implement the relevant objectives of the All-Ireland Pollinator Plan 2021-2025[18].

All planting plans and landscaping proposals will ensure that no invasive species (in particular Japanese knotweed and giant hogweed) are introduced, either deliberately or inadvertently, to the Site. The planting will, over time, provide additional habitat of benefit to bats and birds that will

[18] https://pollinators.ie/wp-content/uploads/2021/03/FINAL-All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf

continue to use the Site, reducing the potential impact from *long term to permanent, slight to moderate negative* to *permanent, slight* and *neutral.*

No bat roosts will be removed as part of the Proposed Development and it will not be necessary to apply for a derogation licence under Regulation 54 or 55 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

The clearance of any vegetation that may be suitable for use by nesting birds will be undertaken outside the bird nesting season (avoiding the period 1 March to 31 August). Should the construction programme require vegetation clearance between March and August, and this is unavoidable, bird nesting surveys will be undertaken by suitably qualified ecologists. If no active nests are recorded, vegetation clearance will take place within 24 hours. In the event that active nests are observed, an appropriately sized buffer zone (up to 5 m radius around the nest) will be maintained around the nest until such time as all the eggs have hatched and the birds have fledged – a period that may be three weeks from the date of the survey. Once it is confirmed that the birds have fledged and no further nests have been built or occupied, vegetation clearance may take place immediately;

These measures will reduce the potential impact from *long term to permanent* and *slight to moderate* to *permanent, not significant* and *neutral* at the Site level.

The suitability of the Phase 1F lands for nesting meadow pipit and skylark is very limited and its use by, for example roosting lapwing and curlew, or by foraging snipe is not significant. As the ground continues to be disturbed by excavators and other construction activity there is a likelihood that gulls of several species may still be attracted to the 1F lands to forage as would be seen when a field is ploughed. This gull activity would however be expected to be short lived during earthworks phases only.

Given the species recorded and the amount of bird activity that exists within the Phase 1F lands and the wider (former) LAP lands, and considering the habitats present (a construction compound and grassland) the seasonal restriction for vegetation clearance relates to the grassland area only, and to the scrub to the south of Mayne Road, where the rising main will be located.

The construction zone and the area to be cleared of vegetation will be clearly demarcated and will not extend outside the red line boundary of the Phase 1F development. The proposed development of Phase 1F will not impact in any way on the existing ecological buffer lands at Portmarnock South, or on the Bird Quiet Zone or the ecological lands to the south (i.e. the lands to the north of Moyne Road). No additional buffering is necessary.

6.6.2.2 Operational Phase

Loss of, or Disturbance to Habitats within the Site

As detailed in the Landscape Design Rationale Report (prepared by Brady Shipman Martin and submitted under separate cover as part of this application), The landscape approach for the Proposed Development is in accordance with the requirements of Portmarnock South LAP (now expired) and builds on the delivery of open space and biodiversity enhancement as set out under previous permissions.

Overall, the project will incorporate a wide range of biodiversity and climate-focused planting as part of the public open space provision for Phase 1F. This will include, among other things, the following:

- The planting palette for Phase 1F will prioritise pollinator-friendly planting (of all types – flowering plants as well as bushes / shrubs and trees). Although native planting is preferred, the planting will necessarily include some carefully chosen planting that will also adapt to climate change;
- The landscape areas will include some areas of bare ground – left to encourage solitary bees and an element of natural regeneration;
- Bat and bird boxes and insect hotels will be provided in suitable locations within the landscape. These features are not required for mitigation, but they provide both additional habitat and a focus for biodiversity education for residents and local people;

- The development will adhere to sustainable drainage (SuDS) principles. Where appropriate and feasible – and where sufficient water exists, wetland planting (native) will be included.

The proposed landscaping and other interventions will reduce the potential impact from *long term to permanent* and *moderate* to *permanent* and *neutral or slight positive*.

Lighting

Although the LAP has expired, the lighting design remains in compliance with Section 5.7 and Objective PL 1 of the LAP, which requires light intensity zones for the plan lands to ensure that environmental impact is minimised as far as possible in development schemes. The proposed lighting for the Proposed Development has been designed in accordance with the following guidelines: -

- Bats and Lighting – Guidance Notes for Planners, Engineers, Architects and Developers (Bat Conservation Ireland, 2010)[19];
- Bats and Artificial Lighting at Night, Institute of Lighting Professionals, 2023[20];
- Guidance Notes for the Reduction of Obtrusive Light GN01-21 (Institute of Lighting Professionals, 2021)[21];
- Dark Sky Ireland's Environmentally Friendly Lighting Guide[22].
- Guidelines for consideration of bats in lighting projects (Eurobats Publication Series No 8, 2018)[23].

The proposed lighting will have the following characteristics: -

- The minimum level of lighting will be provided within the developed areas, within the lux level criteria required by Fingal County Council.
- The light temperature of all fittings will comply with the requirements of Fingal County Council.
- No flood lighting will be provided within the Proposed Development and all light fittings will be LED and are designed to shine downwards and will avoid sky glow and light spill.
- Lighting will be directed onto the roadways and paths – and away from the retained hedgerows and open space network.

The lighting proposed will reduce the potential *permanent, moderate, negative impact* upon bats to *long term, slight negative*.

A total of five bat boxes (Schwegler 2F) were installed in the tree lines to the south and west of the Proposed Development area, as part of the Phase 1A development. There is no evidence of bats ever having used the boxes erected as part of Phase 1A. Regardless, based on the based on the evidence gathered and presented in Appendix 6.2, it is proposed to install an additional 7 bat boxes (Three 2F and four 1FF Schwegler bat boxes) to provide new roosting opportunities. This is not mitigation for roost loss, rather, the new bat boxes are being provided as habitat/biodiversity enhancement measures

Surface Water

The regional wetland, to which Phase 1F will be connected, is operational in compliance with the planning conditions related to the Phase 1B development. Surface water arising as a result of the

[19] https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines_Lighting.pdf
[20] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/
[21] https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/
[22] https://www.darksky.ie/lighting-documents/#guidelines
[23] https://www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

Proposed Development (Phase 1F) will be connected into the overall surface water drainage strategy for the Portmarnock South lands, which is fully operational. This will ensure that there will be no impacts on surface water quality once the Proposed Development is operational.

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.

Foul Water

As set out in detail in the Water Services Report (Egis) that accompanies the planning application and is submitted under separate cover, the lands at Portmarnock South (including Phase 1F) lie within the North Fringe Sewer catchment, which discharges to the Ringsend Wastewater Treatment Plant, currently undergoing significant upgrades.

The greater Portmarnock foul network discharges to an existing pumping station located adjacent to Portmarnock Bridge and from there the effluent is pumped via a rising main along the Coast Road to a high point and then flows by gravity to the Mayne Bridge Pumping Station which in turn pumps to the North Fringe Sewer (1600mm diameter in this locale) located approximately 1km to the south, and as noted earlier this then flows into the Sutton Pumping Station which pumps to the Ringsend Wastewater Treatment Plant.

Although originally envisaged by the Local Area Plan, that a new permanent pumping station would be constructed on the Portmarnock South Lands, which would service both the proposed development flows and replace the existing Portmarnock Bridge Pumping Station (nearing capacity and lacking storage, particularly during significant rainfall events), upon review by Uisce Éireann, following their assumption of responsibility for foul and water infrastructure in 2014, they proposed to develop a new Portmarnock Bridge

Pumping Station on lands adjacent to the existing pumping station as part of their Local Network Reinforcement Project strategy.

It is intended to connect the foul sewerage from the proposed 296 residential units of this Phase 1F development to the existing foul sewer network in the Portmarnock South lands (to the north and west of this proposed development and constructed under previous phases). The connection (via 1 individual connection point) will be to the previously constructed interim foul pumping station, constructed originally as part of the Phase 1B development, but significantly upgraded under the Phase 1D development and currently being commissioned.

The network serving these lands currently discharges to the aforementioned existing interim pumping station (complete with 24-hour emergency storage and 6-hour operational storage) adjacent to Station Road from where it is pumped to a gravity line which then discharges to the existing foul sewer in Coast Road. This existing sewer in turn discharges to the Uisce Éireann Mayne Bridge Pumping Station, from where it is pumped to the North Fringe Sewer.

It is noted that the Mayne Bridge Pumping Station was upgraded by the developer in 2018 with the installation of two new pumps, upsized pipework and improved electrical and control systems as part of a condition appended to the grant of permission for Phase 1A.

Ultimately, it is intended that all foul flow from the Portmarnock South lands will discharge by gravity to a proposed new Uisce Éireann Pumping Station adjacent to Portmarnock Bridge from where it will be pumped directly to the North Fringe Sewer and the temporary pumping station serving this development would then be decommissioned.

A pre-connection enquiry form was originally submitted to Uisce Éireann in July 2024 and Uisce Éireann replied with Confirmation of Feasibility on the 14th of October 2024 noting *Feasible subject to upgrades.* This document is attached in Appendix 1 of the Water Services Report.

There will be no operational impacts related to foul water management, in the context of biodiversity, as a result of the Proposed Development.

6.7 RESIDUAL IMPACT OF THE PROPOSED DEVELOPMENT

6.7.1 Proposed Development

There will be a limited loss of feeding within the Site for bats and birds and a loss of nesting areas for birds. Vegetation will establish over time and these losses will be reduced considerably. There will still be less cover for birds following all mitigation. There will be very limited (neutral to slight negative) long-term impact upon bats within the Site given the low level of bat activity noted. There will be no loss of roost potential as the Site develops.

The biodiversity-focused planting, as set out in the landscape specifications that accompany the application, will ultimately enhance the biodiversity value of the completed development.

6.7.2 Cumulative

Neither the development proposed (Phase 1F) nor any other developments will give rise to any significant impacts on biodiversity and there are no predicted cumulative impacts in relation to biodiversity, for example in terms of habitat loss or disturbance to protected species, as a result of the Proposed Development in combination with existing / proposed plans or projects.

6.8 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 the project Construction and Environmental Management Plan and the mitigation measures set out in this EIAR.

Should vegetation clearance be required during the bird nesting season, this work 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. Similarly, no evidence of roosting bats was recorded on the Site during any of the surveys undertaken. Regardless, a pre-construction survey will be undertaken to ensure that work continues to have no impact on roosting bats.

Monitoring of all fuel / oil storage areas will also be undertaken to ensure that all related mitigation measures are being implemented effectively.

The nesting boxes and insect hotels installed on the Site will be checked annually for a period of two years post-completion of the works, to ensure that they continue to be accessible to these species. If necessary, they will be repositioned within the Site, under the supervision of the Project Ecologist.

6.9 REINSTATEMENT

The majority of the Site area to be removed comprises parts of disused agricultural fields and areas of heavily disturbed land. Given the habitats present no reinstatement is required. The landscaping proposed will mitigate the habitat loss.

This habitat creation, coupled with the high value biodiversity planting proposed as part of the overall development, will ensure that there will be new habitat connectivity between the Proposed Development site and the wider area. The mitigation measures set out in this EIAR and in the landscape design prepared by Brady Shipman Martin will be implemented, including the extensive planting of ecologically diverse habitats, where appropriate, within the open space.

Once the rising main is decommissioned (when the new pump station is operational – refer to the Water Services Report (Egis, 2025) the pipe will be rinsed out, capped and left *in situ* and no reinstatement works will be required.

6.10 DIFFICULTIES ENCOUNTERED

No difficulties were encountered in compiling the Biodiversity Chapter of the EIAR. All surveys were undertaken to an appropriate level given the nature of the Site and the Proposed Development. The report is based on biodiversity surveys undertaken over multiple seasons across multiple receptors.