

**Appropriate Assessment Screening Report &
Natura Impact Statement**
for proposed

Rathmore Recreational Sports Hub, Co. Dublin

**in accordance with the requirements of
Article 6(3) of the EU Habitats Directive**

by
CAAS Ltd
for
Fingal County Council



**Comhairle Contae
Fhine Gall
Fingal County
Council**



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1. Introduction

1.1. Background

CAAS has been appointed by Fingal County Council to carry out prepare this Appropriate Assessment Screening Report (AASR) and Natura Impact Statement (NIS) for the proposed Recreational Sports Hub (the proposed development) at Rathmore Park, Lusk, County Dublin. AA is a procedure carried out in accordance with the requirements of Article 6(3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the “Habitats Directive”). The AASR and NIS have been prepared to assist the competent authority in conducting Appropriate Assessment for the proposed development.

1.2. Report Structure

The legislative context for the assessment process with reference to relevant guidelines and highlight the experience and qualifications of the author (See Appendix IV for author qualifications) is set out. This is followed by details the proposed development and the works associated with this which are then interrogated to identify any possible effects which may be ecologically relevant for European sites. Following this, the metrics for the assessment of ‘significance’ of these effects are explained and applied to each of the European sites with ecological connectivity to the proposed development area. This assessment is undertaken in view of the conservation objectives and known sensitivities of the qualifying interests and special conservation interests for each European site. Other plans and projects are then considered to identify any likely in-combination effects which may result in the likelihood of potential significant effects to European sites.

1.3. Legislative Context

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the “favourable conservation status” of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Habitats Directive as above and Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable among them. These two designations are collectively known and referred to as European sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect such sites. Article 6(3) establishes the requirement for AA. These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act 2000 (as amended).

Article 6(3) of the Habitats Directive States:

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

The AA process relates to the protection of species listed in Annex I and Annex II of the Habitats Directive which form the Natura 2000 network (Article 3(1)). Species breeding and resting places of species listed in Annex IV of the Habitats Directive are nationally protected in Ireland as per Articles 15 and 16 of the Habitats Directive. The actual species listed in Annex IV do not form part of the

Natura 2000 network as they are not mentioned in Article 3(1) of the Directive which defines the Natura 2000 network.

Article 3(1) of the Habitats Directive States:

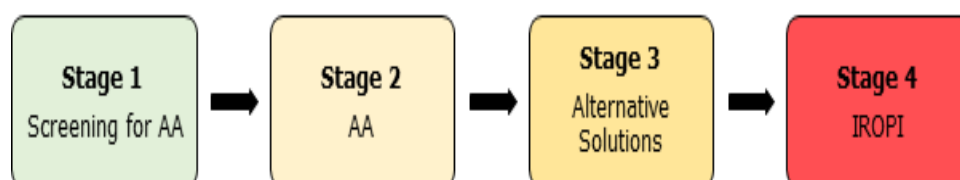
'A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range'.

AA is an assessment of the likely potential significant effects arising from a plan or project, either individually or in combination with other plans or projects, to assess if the plan or project will have potential for significant effect on any European site concerned, and implications in view of the European site's conservation objectives. These sites consist of SACs and SPAs and provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats. Where a formal consent process applies, the AA process is concluded by the relevant competent authority making a determination in accordance with article 6(3) of the Habitats Directive.

1.4. Overview of the Habitats Directive and Appropriate Assessment Process

The Habitats Directive itself promotes a hierarchy of avoidance, mitigation and compensatory measures. This approach aims to avoid any effects on European sites by identifying possible effects early in the plan or project making process and avoiding such effects. Second, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential significant effects on European sites remain, and no further practicable mitigation is possible, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the plan or project is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effects.

There are four main stages in the AA process:



Stage One: Screening

The process that identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse effects mitigation measures are required to avoid or minimise potential effects. The details of these mitigation measures are then assessed in the context of the ecological integrity of the plan/project characteristics to ensure no significant adverse effects on European sites. If this assessment process shows there are no residual significant effects, then the process may end at this stage, stage two, of the AA process which are formalised in Natura Impact

Statements (NIS) reports which support the overall AA process. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions

The process that examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

2. Methodology

2.1. Approach

The AA screening has been prepared taking into account the relevant legislation (ref s1.3) and guidance, including:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009;*
- *Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC", European Commission 2018;*
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Notice, Journal of the European Union, 2021;*
- *Practice Note PN01: Appropriate Assessment Screening for Development Management, Office of the Planning Regulator, 2021*

2.2. Source-Pathway Receptor Model

Ecological impact assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model, where, in order for there to be potential for effect all three elements of this mechanism must be in place, as assessed during the AASR. The presence of all three elements does not automatically constitute a likely significant effect, this depends several factors such as, the nature of the source; the magnitude, duration etc. of the impact, the nature of the pathway, and the sensitivities of the receptor. The absence or removal of one of the elements of the mechanism is sufficient to conclude that there is no cause for potential effect.

- Source(s) – e.g., pollutant run-off from proposed development;
- Pathway(s) – e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) – e.g., qualifying aquatic habitats and species of European sites.

As per the above examples; a source is any identifiable element of the proposed development that is known to interact with ecological processes. A pathway is any connection between the source and the receptor. A receptor is a Qualifying Interest or Special Conservation Interests of the European site in question, their known sensitivities and Conservation Objectives. A receptor is a Qualifying Interest or Special Conservation Interest of a European site, or an ecological feature that is known to be utilised by the Qualifying Interests or Special Conservation Interests of a European site.

Where these three elements are in place, there is potential for significant effect (either direct, indirect and in-combination with other plans or projects). This is then examined further by the AASR in the context of the proposed development, the QIs / SCIs involved, their threats and sensitivities, best scientific evidence where required, and their Conservation Objectives, in order to determine whether there is a likelihood for significant effects. Where doubt exists, the precautionary principle is applied¹. Where a likelihood for significant effects is determined, mitigation measures would be required in order to prevent adverse effects to the QIs / SCIs involved in light of their Conservation Objectives, and the European site(s) concerned would need to be subject to further assessment in a Natura Impact Statement (NIS).

2.3. Zone of Influence

As an initial search zone, this 15 km search zone was applied for this assessment. Beyond 15 km, further considerations were given to hydrological pathways (i.e., surface and/or groundwater) connecting the proposed development to European sites, as these may extend beyond the 15 km

¹ Case law: ([C127/02 Waddenzee](#)).

search zone, and potential for ex-situ foraging within and nearby the proposed development site of certain SCI species from SPAs beyond 15km.

Subsequently the Zone of Influence (ZOI) was then established. This is based on the source-pathway-receptor model (as described in s2.2) and is the main basis on which the assessment is carried out, i.e., examining the nature of the proposed project and connectivity to European sites, their sensitivities, and Qualifying Interests (species and habitats designated for SACs) and Special Conservation Interests (species designated for SPAs), in the context of their Conservation Objectives. The ZOI is defined in the relevant guidance^{2,3} as the geographical area, relative to the proposed development, over which the proposed development could have effects on the ecological receiving environment in a way that could result in potential significant effects on the Qualifying Interests or Special Conservation Interests of a given European site.

In order to determine the potential effects of the proposal, information on the qualifying features, known vulnerabilities and threats pertaining to any potentially affected European sites has been reviewed. Background information on threats to individual sites and vulnerability of habitats and species that was used during this assessment included the following:

- Ireland's Article 17 Report to the European Commission "*Status of EU Protected Habitats and Species in Ireland*" (NPWS, 2019);
- Ireland's Article 12 Report to the European Commission "*Bird species' status and trends reporting format for the period 2008-2012-*" (NPWS, 2012)
- Site Synopses⁴; and
- NATURA 2000 Standard Data Forms⁴.

As the Conservation Objectives for the European sites focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the AASR concentrates on assessing the potential effects of the proposed development against the QIs/SCIs of each site and their Conservation Objectives.

2.4. Desktop study

The AASR and NIS is based on best scientific knowledge, has utilised ecological expertise, and is supported by desktop research on national and regional databases including:

- The National Biodiversity Data Centre⁵;
- The NPWS datasets on protected species and habitats and population trends⁶ (including mapping and available reports for relevant European sites, and in particular the Qualifying Interests/Special Conservation Interests described and their Conservation Objectives);
- Recent scientific literature where relevant;
- BirdWatch Ireland IWEBs data trends where relevant⁷
- The EPA⁸ mapping websites for hydrological connectivity, and quality;
- Data collected for the most recent Article 12 and 17 conservation status reporting cycle, 2019; and,

² Practice Note PN01: *Appropriate Assessment Screening for Development Management*, Office of the Planning Regulator, 2021.

³ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

⁴ NPWS (2019); NPWS Database of protected site data and associated documents for each European site; available at <https://www.npws.ie/protected-sites>: last accessed 26th October 2022

⁵ National Biodiversity Data Centre datasets available [here](#).

⁶ NPWS datasets available [here](#) and [here](#).

⁷ BirdWatch Ireland IWEBs data available [here](#).

⁸ EPA mapping available [here](#).

- Data collected from “*The Status of Protected EU Habitats and Species in Ireland*” report (NPWS, 2019).

The initial screening of European sites for the AASR of the proposed development was conducted under the following overall approach:

- The identification of European sites within a 15 km⁹ initial pathway consideration zone of the subject lands (and greater than 15 km if relevant);
- The identification of direct or indirect pathways for potential effects (e.g., hydrological / disturbance / ex-situ foraging)
- Identification of a localised Zone of Influence for the proposed development (via source-pathway-receptor model, as described below);
- Review of the NPWS site synopses and Conservation Objectives for European sites within 15 km and for which potential pathways from the proposed development area have been identified;
- Examination of available information on protected species from the NPWS and NBDC, and
- Baseline site surveys to support the AASR and/or NIS where necessary.

2.5. Ecological surveys

2.5.1. Habitats

During the initial ecological walkover conducted on the 3rd of May 2023, the overall habitat was assessed using Fossitt (2000)¹⁰ and Smith (2011)¹¹, and examined for potential for supporting any species or habitats from surrounding European sites. The site was also examined for direct or indirect connectivity with European sites, for example; direct hydrological connectivity via a watercourse between the proposed development and a European site, or ex-situ foraging potential for SCI species. All relevant features were recorded using Arc GIS Survey 123 for subsequent analysis.

2.5.2. Winter bird surveys

Winter bird surveys were carried out for the proposed development for the winter season of 2023/2024 on the following dates (see Appendix V for survey metadata):

- 23rd November 2023
- 7th December 2023
- 8th December 2023
- 9th January 2024
- 10th January 2024
- 18th February 2024

Surveys were conducted over 6 days with a total of 36 hours. Surveys followed NatureScot (2017) guidance¹² and Gilbert *et. al.* (1998)¹³ for methodology for vantage point wintering bird surveys, species specific requirements, and for the frequency of surveys to be carried out in the winter season considering the nature of the site. All surveys were carried out by independent ornithologist Laurance Manning, on behalf of CAAS. All data was recorded using Arc GIS Survey 123 for later analysis and mapped using Q GIS 3.2. The surveys focused on the proposed development site, and the surrounding greenfield lands, i.e., the playing pitch to the northwest and agricultural lands to the

⁹ While the actual zone of influence is likely to be much smaller, the default 15km zone extent has been applied on a precautionary basis further detail on this is identified in section 3.2

¹⁰ Fossitt, J (2000) *A Guide to Habitats in Ireland*. Heritage Council

¹¹ Smith, G. F., O'Donoghue, P., O'Hara, K., Delaney, E (2011) *Best Practice and Guidance for Habitat Surveying and Mapping*. Heritage Council

¹² Scottish Natural Heritage, 2017. Recommended bird survey methods to inform impact assessment of onshore wind farms, Ver. 2.

¹³ Gilbert, G., Gibbons, D.W., & Evans, J. (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species*. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England

north. All other areas within the local vicinity of the site are either residential development or local amenity services. The proposed development was also walked each survey day and checked for signs of use by foraging SCI species such as geese – for example droppings.

2.5.3. Survey limitations

One survey date for early February 2024 was cancelled due to unsuitable weather conditions. The wintering bird survey season is October – March inclusive. However, the proposed development is an upgrade of an existing highly disturbed recreational/sports area, which has low quality, intensively managed amenity grassland that is overall unsuitable for ex-situ foraging species – but, in considering the location of the proposed development, and active foraging by SCI species recorded in the adjacent and surrounding landscape, surveys were carried out on a precautionary basis. Therefore, it is considered that the survey effort is sufficient to support the Appropriate Assessment process for the proposed development.

3. Description of Proposed Development

The proposed Rathmore Recreational Sports Hub development site is 3.5 ha in area and includes the following (see accompanying Figure 3.3):

- A new all-weather GAA training area measuring 74m x 28m with a ball-wall measuring 20 x 5m at the northern end, enclosed with a 4m high weld mesh fencing and 2no. ball stop nets 20m x 6m at the south and north of the training area.
- A new All-Weather soccer pitch measuring 100m x 64m with flood lighting and All Weather 8 lane athletics running track with flood lighting, enclosed with a 1.2m high weld mesh fence finished black in colour at 1.2m from the edge of the running track and located on a permeable tarmac footpath surrounding the track 2.7m width from the edge of the track and finished with a pin-kerb at both edges of the tarmac.
- Proposed extension to the existing car park of 21no. additional spaces including disabled & EV ready parking bays. Carpark to consist of asphalt road and permeable surface (grass & concrete paving or similar) to parking bays.
- A new storage container for sports equipment measuring approximately 12m x 2.4m x 2.5m.
- Landscaping works including soil grading, mounding, tree planting and boundary treatments.
- Covered Bicycle parking – 30no. bicycle parking spaces to include adapted bicycles.
- A teenage space to include a half size basketball court, and hang-out zone with teen appropriate play features.
- All other ancillary Site Works including re-location of existing play equipment and new signage, footpaths, drinking fountain and electrical & drainage connections.



Figure 3.1. Location of the proposed development

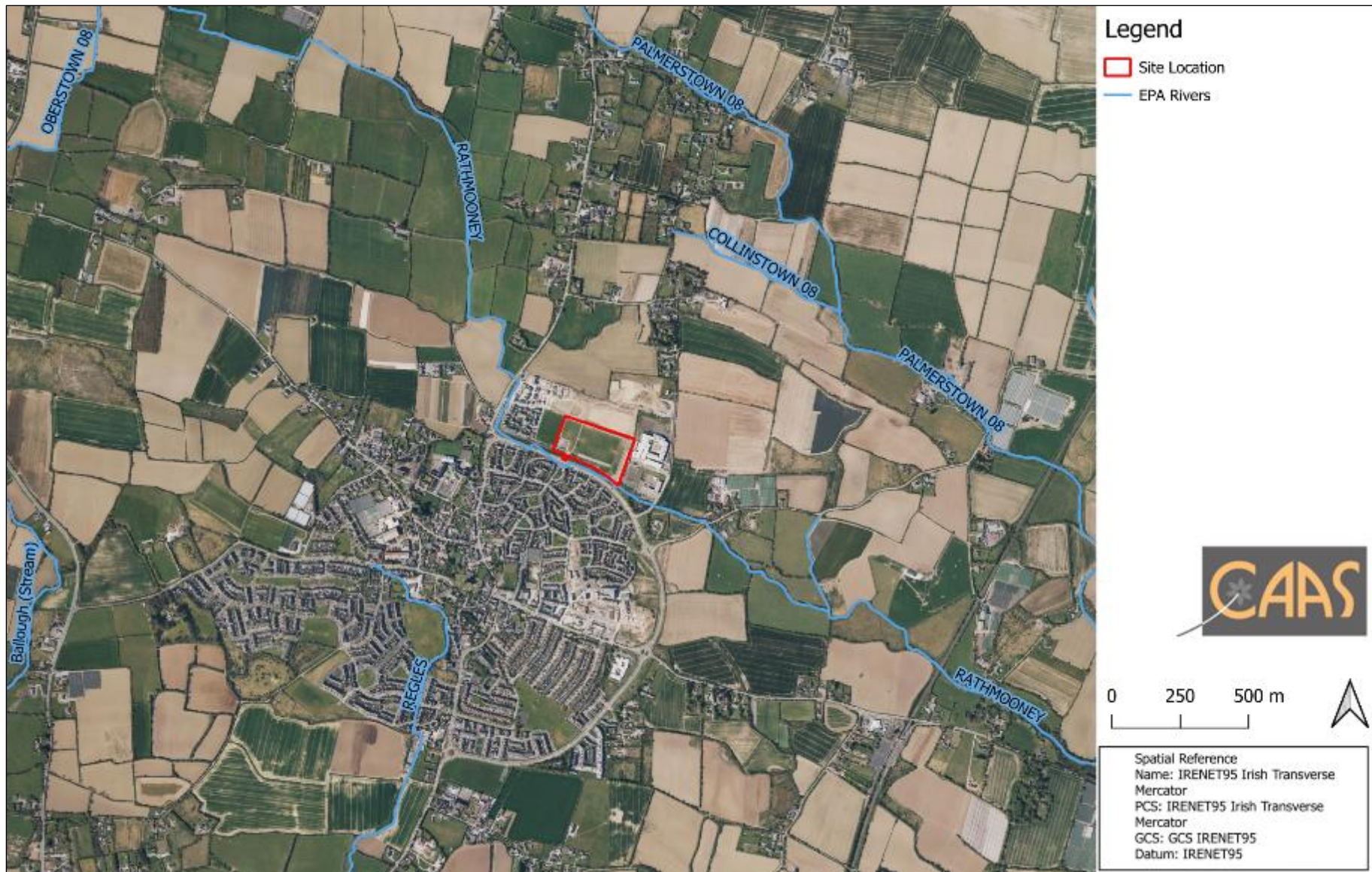


Figure 3.2. Location of EPA rivers relative to the proposed development

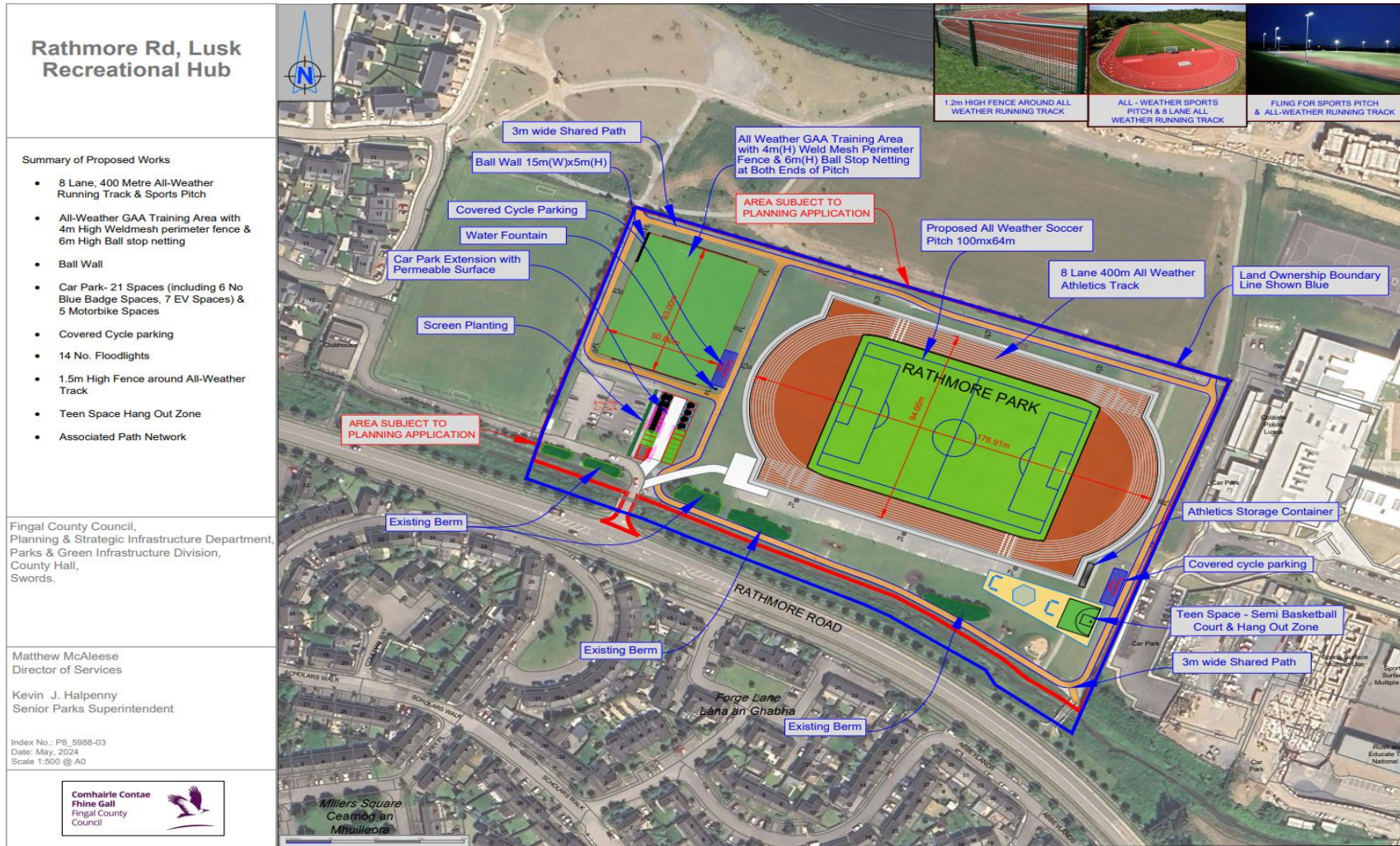


Figure 3.3. Plan of proposed development¹⁴

¹⁴ Source: Fingal County Council (See accompanying drawing set for full scaled version)

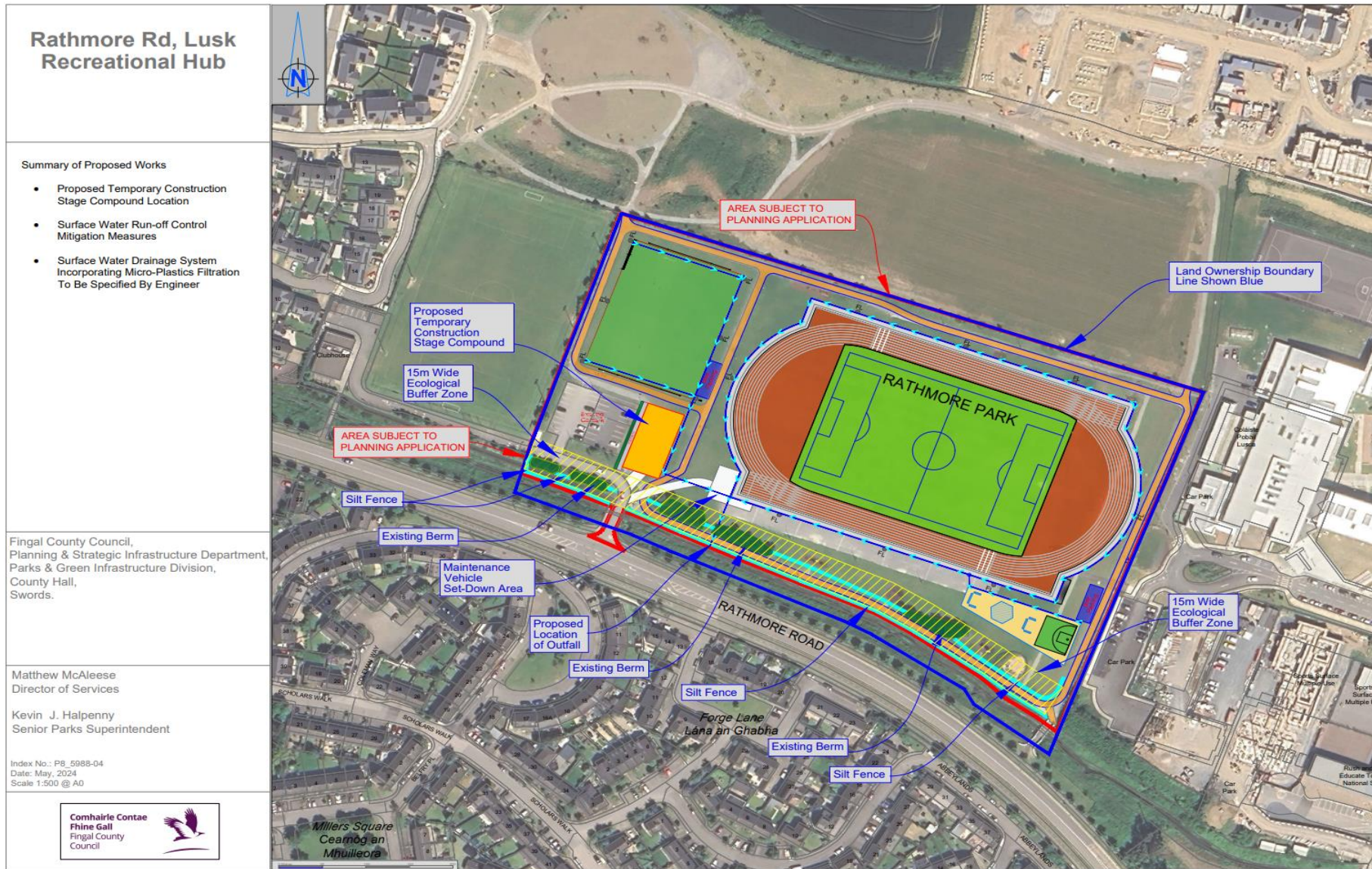


Figure 3.4 Construction phase design¹⁴

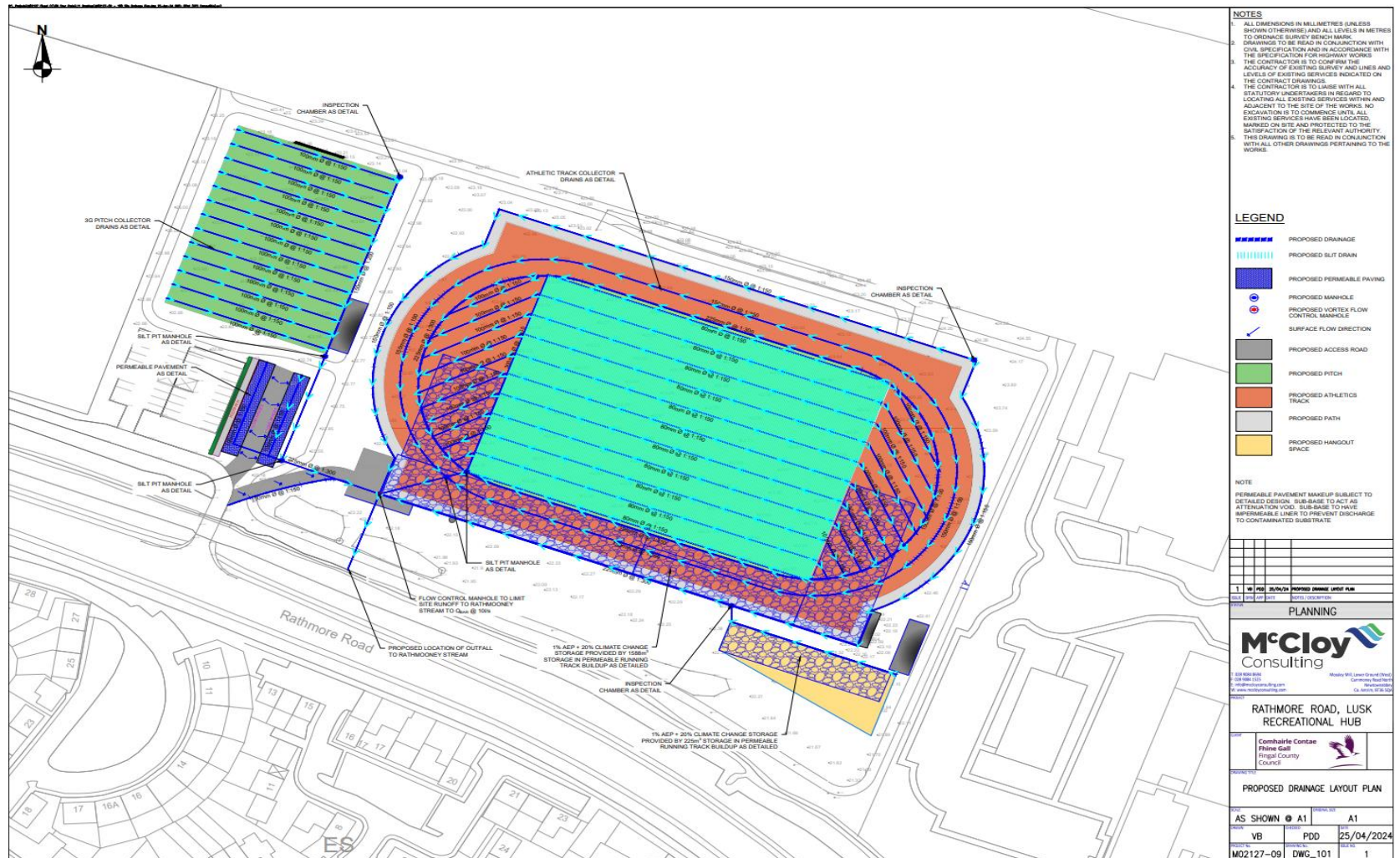


Figure 3.5 Proposed surface water drainage design¹⁵

¹⁵ Source: McCloy Consulting and Fingal County Council (See accompanying drawing set for full scaled version)

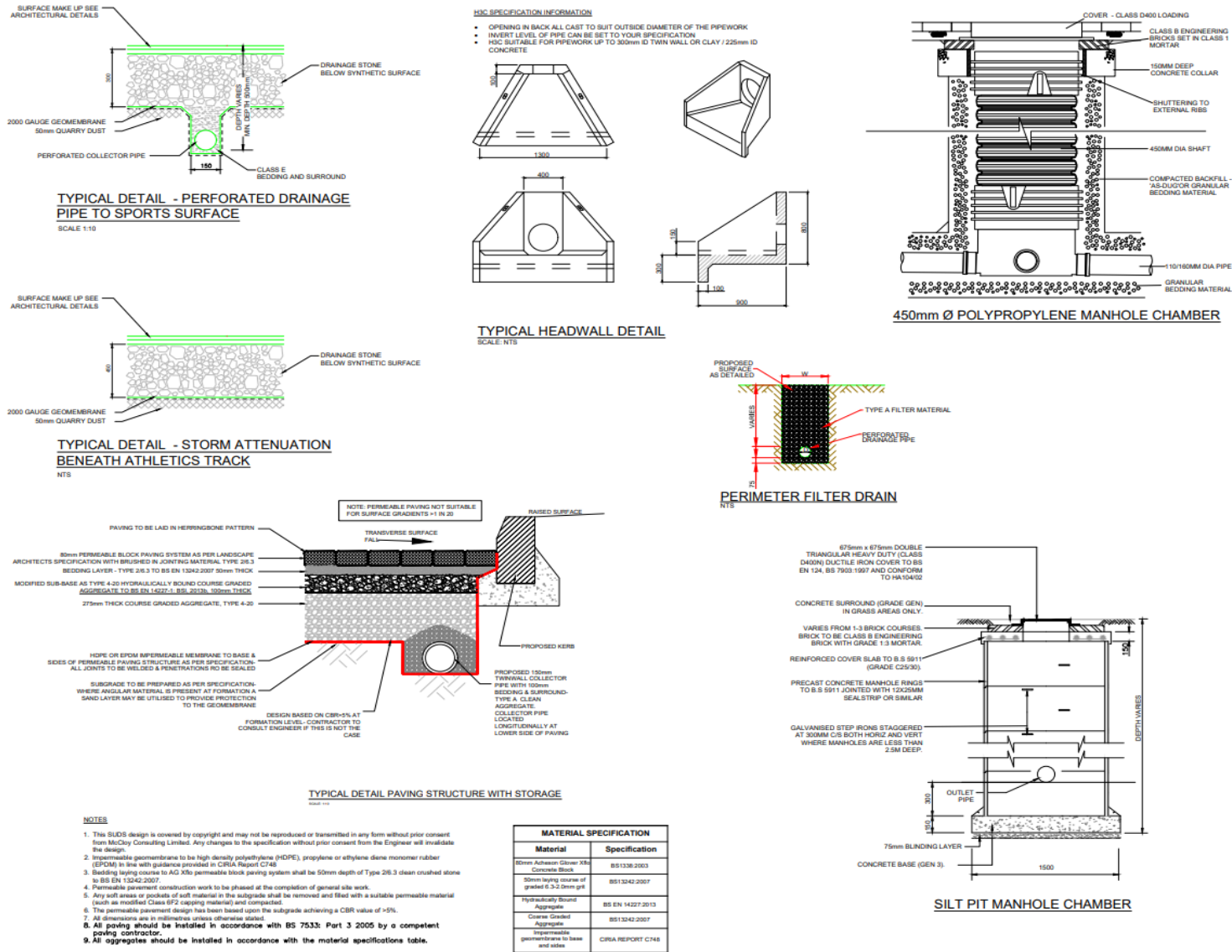


Figure 3.6 Proposed surface water drainage design details¹⁵

4. Receiving Environment

4.1. General description

The proposed development is located at Rathmore Park, on the northern outskirts of Lusk in north County Dublin. The village of Lusk is a commuter town of Dublin city and is composed of a large number of residential developments. An ecological walkover survey was conducted on site on the 3rd of May 2023. The walkover informed what surveys were required in order to support an AASR, and to identify pathways or receptors for potential effect as a result of the proposed development. The proposed development is 3.5 ha in area, and is currently utilised as a sports / recreational hub for the Lusk area.

The proposed development is mostly composed of amenity grassland, with small areas of hard standing artificial surfaces that mainly consist of a small playground area, pathways surrounding the existing site (identified in orange in Figure 3.3), and a car park (Figure 3.1). The site is immediately bordered by small developments to the east and west and the R127 to the south. In addition, new developments are in construction to the north of the proposed development. There are extensive areas of agricultural lands to the north of the proposed development with the eastern coast of Ireland approximately 4.7 km to the east.

The Rathmooney stream (known locally as the Bride stream) flows easterly, adjacent to the southern boundary of the proposed development. The stream then connects to Rogerstown Estuary SAC (00208) and SPA (004015), approximately 3 km from the proposed development, then emptying into the Irish Sea (Figure 3.2). This represents a direct surface hydrological connection between the proposed development and these European sites. There is also indirect hydrological connectivity with the Rathmooney stream, via infiltration of rainwater through the soft surface amenity grassland within the site itself, and with the Rogerstown Estuary via suburban, underground surface water drainage that is ubiquitous in suburban landscapes.

4.2. Habitats

The site is composed almost entirely of intensively managed, short sward, amenity grassland (Figure 3.1). The sward is underdeveloped, with very few other species in occurrence throughout the site. There are some small areas of scrub to the south, and along the borders, which will not be of any significant for surrounding European sites. Due to the site's current use as a recreational park, there are high levels of disturbance from various forms of recreation (dog walking, running, playing football etc.). The amenity grassland is of low quality, however due to the nature of the habitat, and the proximity to coastal wetland European sites; potential for supporting SCI populations could not be ruled out with certainty. Therefore, considering this and the precautionary principle¹⁶, wintering bird surveys were carried out to ascertain the value of the amenity grassland habitat for SCI species of surrounding SPAs. No invasive species were recorded on site.

4.3. Hydrology

As mentioned, a small stream, the Rathmooney (IE_EA_08P030930) (known locally as the Bride stream), runs adjacent to the southern border of the proposed development, and empties into the Rogerstown Estuary approx. 3 km directly downstream to the east (Figure 3.2). This stream has a "poor" status in the 2016-2021 Water Framework Directive monitoring programme. The proposed development site had a slight, gradual reduction in elevation towards the stream. The stream is generally unobstructed, with moderate flow and some overgrowth of ivy in the channel, and represents a direct hydrological connection between the proposed development site and the Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA (Figure 4.2).

¹⁶ Case law: ([C127/02 Waddenzee](#)).

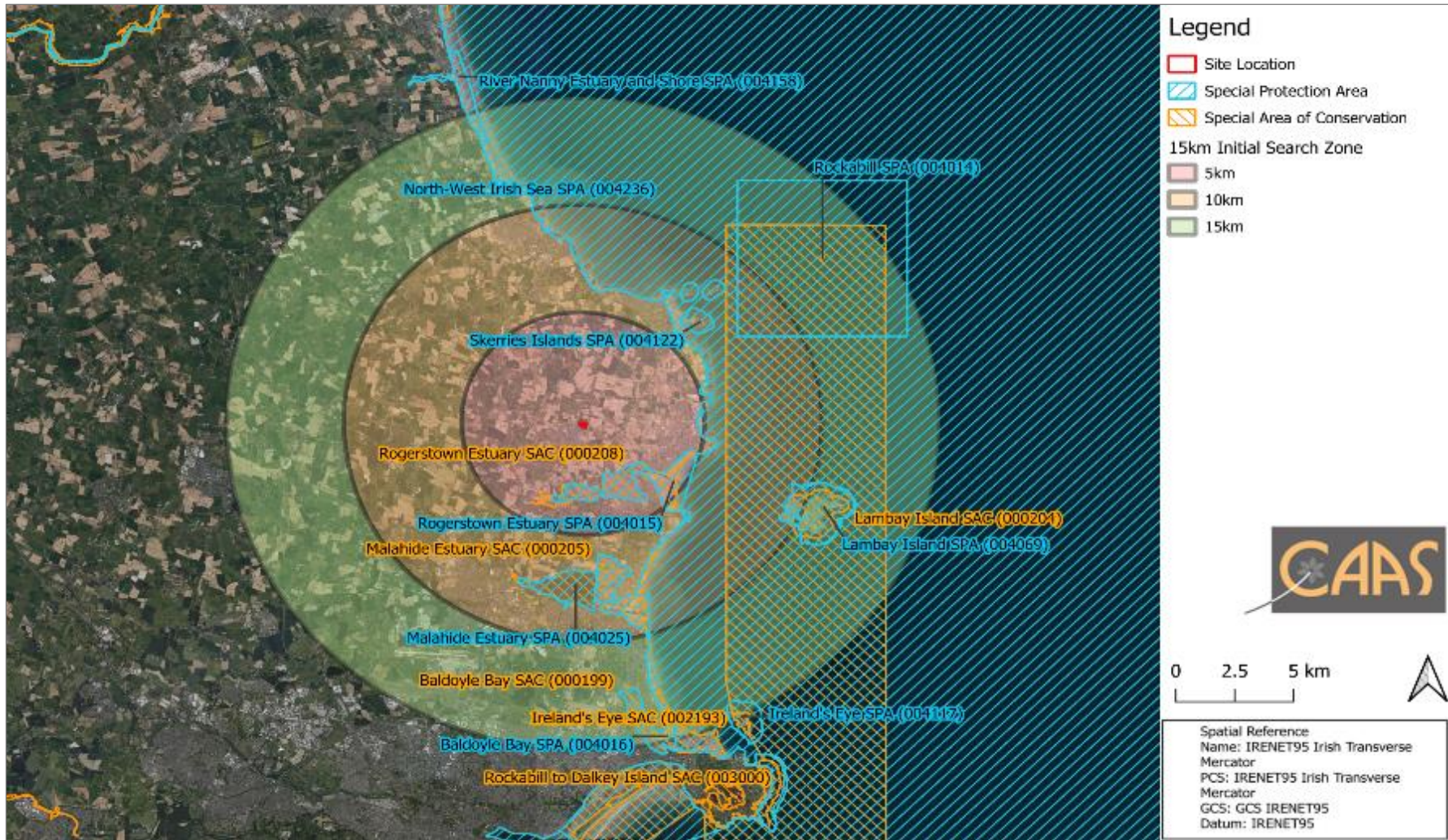


Figure 4.1 European sites within 15 km of the proposed development boundary¹⁷

¹⁷ Source: NPWS (datasets accessed 22nd March 2024)

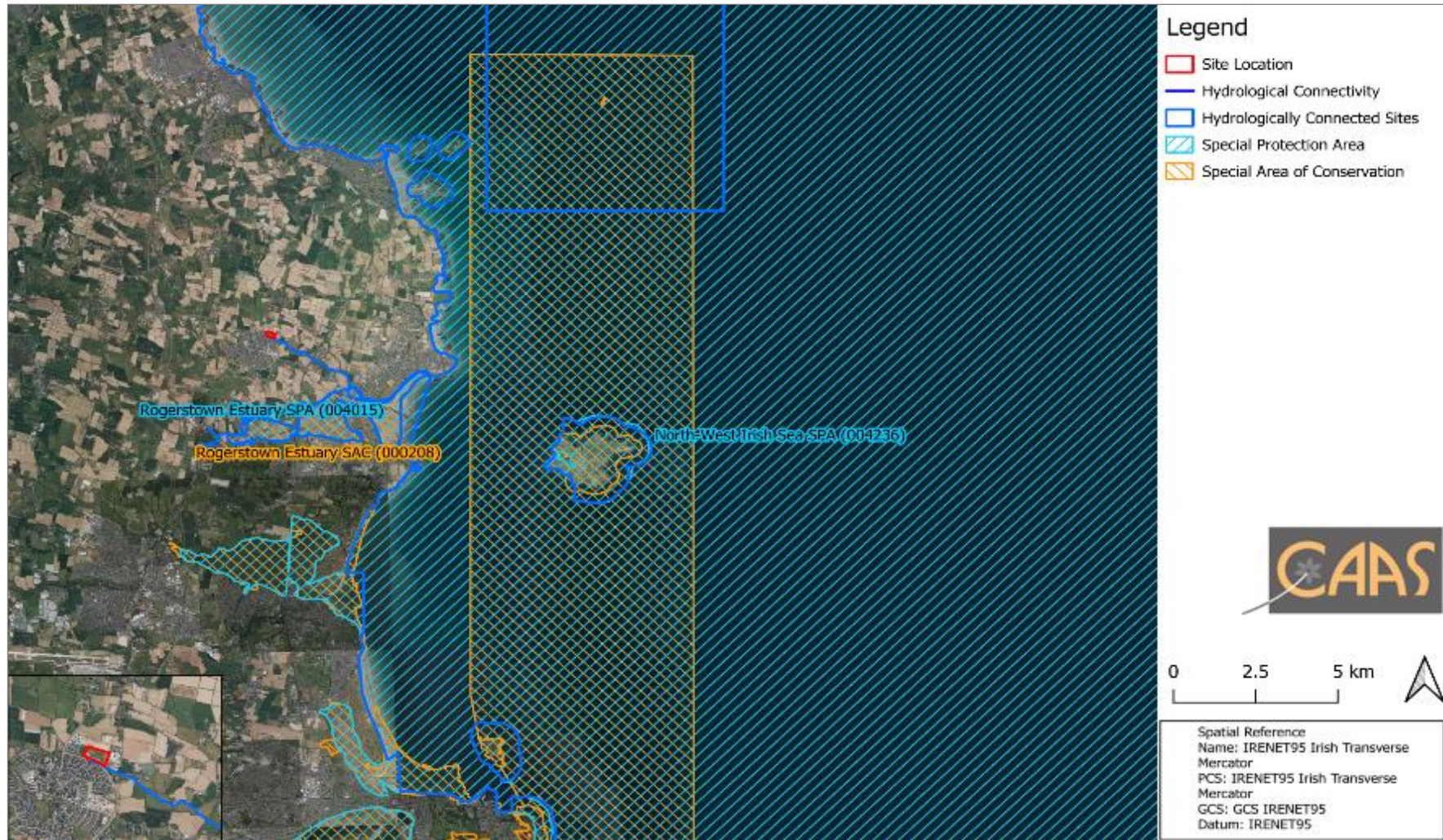


Figure 4.2 Hydrological connectivity of the proposed development to European sites¹⁸

¹⁸ Source: NPWS Protected Sites and EPA River Scheme areas (datasets accessed 22nd March 2024)

4.4. Winter bird surveys

Surveys were carried out during the peak winter foraging season for foraging SCI species with 6 days covering 36 hours of the peak wintering season.

Results for foraging areas recorded a low diversity of species with three species of winter birds visiting the site in small numbers over the wintering season (see Figure 4.6 and Figure 4.7). Maximum numbers of black headed gull and common gull amount to 11 and 12 respectively (Table 4.1). Several instances of major disturbance were recorded during surveys on site (see Appendices V to VII for full data from surveys), which is to be expected for such a site that is utilised as an important recreational and sports hub for the local and wider Lusk area.

As an indicator of how the number of individuals foraging within the proposed development site relates to the numbers of individuals typically recorded in national monitoring surveys (i.e., BirdWatch Ireland's I-WeBS) within nearby designated sites, such as the Rogerstown Estuary SPA, the 5-year peak count mean for this SPA was compared to the peak counts recorded for the winter bird surveys and percentages calculated (Table 4.1). The percentages of the peak count mean for the nearest SPA recorded on site were 1.7% (Black-headed Gull), 6.3% (Common Gull) and 0.7% (Herring Gull). The typical numbers recorded using the site overall were very low at between 1 and 4 individuals at a time (see Appendix VI for full results from surveys). Therefore, the recorded peak numbers of 11, 12 and 4, for 3 (no.) species utilising the proposed development site's amenity grassland habitat are very low in the context of the surrounding SPAs, and indicates that the proposed development is of no significant value in its current form for foraging SCI species.

Flight surveys also recorded a low diversity with 4 species of winter birds crossing the site see (Figure 4.3, Figure 4.4 and Figure 4.5). These include the three species recorded occasionally foraging in the site (as Table 4.1 below), and Curlew (**Error! Reference source not found.**). A large flock of 56 Curlew was recorded moving south over the proposed development on December 7th 2023. This is not unusual for the area as there are several areas of grassland habitat suitable for curlew foraging in the nearby landscape. The proposed development does not pose any risk for collision as it is for the upgrade of an existing sports and recreational greenfield, with no buildings proposed.

Table 4.1 Peak counts of foraging within the proposed development boundary

Species	Max no. of individuals recorded foraging	Date recorded	Rogerstown Estuary SPA 5-year peak counts mean ¹⁹	% of Rogerstown Estuary SPA 5 year peak counts mean ¹⁹
Black-headed Gull	11	7 December 2023	625	1.7
Common Gull	12	7 December 2023	189	6.3
Herring Gull	4	9 January 2024	541	0.7

Table 4.2 Peak counts of flight lines over the proposed development boundary

Species	Max no. of individuals recorded	Date recorded
Black-headed Gull	20	23 November 2023
Common Gull	2	7 December 2023
Curlew	56	7 December 2023
Herring Gull	22	9 January 2024

¹⁹ "Peak counts mean" = [I-WeBS peak counts](#) for Rogerstown Estuary SPA, recorded over the 2016 - 2021 period.

4.5. Zone of Influence (Zoi)

Regarding hydrology, in considering the nature of the proposed development and the presence of the Rathmooney Stream which runs adjacent to the southern boundary of the site, directly connecting to the Rodgerstown Estuary SAC and SPA, and North-West Irish SPA (approx. 3km directly downstream); the Zoi for hydrology therefore extends to the Rodgerstown Estuary and to the North-West Irish SPA at the mouth of the estuary as it meets the Irish Sea. The proposed development will involve shallow, surface soil earthworks that will not be interacting with bedrock or the groundwater table. Therefore, no interactions with groundwater are expected as a result of the proposed development.

SCI species can commute up to 20 km for ex-situ foraging outside of typical foraging sites / designated SPA areas²⁰ (see Figure 4.1 for European sites surrounding the proposed development site). Therefore, species beyond the Rogerstown Estuary could utilise the site for foraging or roosting. In this regard, the Zoi for ex-situ foraging can be extended for up to 20km from the proposed development site.

Considering the small scale and nature of the proposed development, the Zoi for construction phase impacts such as dust and noise are not expected to extend beyond 1km of the proposed development.

4.6. Relationship to European sites

The proposed development site consists of a majority of amenity grassland that is intensively managed as a short sward for a public recreation area, and located approx. 3 km from the closest SPA designated for SCI species (the Rogerstown Estuary SPA), and therefore the site was considered for ex-situ foraging potential. Wintering bird surveys of the site, focused on SCI species (discussed in s 4.4), found that the site does not support any significant populations of any SCI species of designated SPAs. Therefore, loss of foraging habitat that may support surrounding SPAs is not a pathway for potential effects as a result of the proposed development.

As mentioned, there is a direct, surface hydrological connection between the proposed development and the Rogerstown Estuary / Irish Sea (approx. 3 km directly) via the Rathmooney (Bride) stream as this runs adjacent to the southern boundary of the site (Figure 3.2). The Rogerstown Estuary and Irish Sea contain European sites that have Qualifying Interests and Special Conservation Interests that are sensitive to hydrological interactions (Figure 4.2).

Based on the nature of the proposed development (see s 3) and the receiving environment of the proposed development site; the European sites that occur within the Zoi, that have been identified by desktop review and subsequent ecological surveys to have ecological connectivity pathways (e.g., hydrological) with the proposed development, or as having designated species which may utilise resources contained within the proposed development area, are listed and analysed in Table 5.1.

²⁰ Scottish Natural Heritage (2016) Guidance: Assessing connectivity with Special Protection Areas (SPAs). Version 3

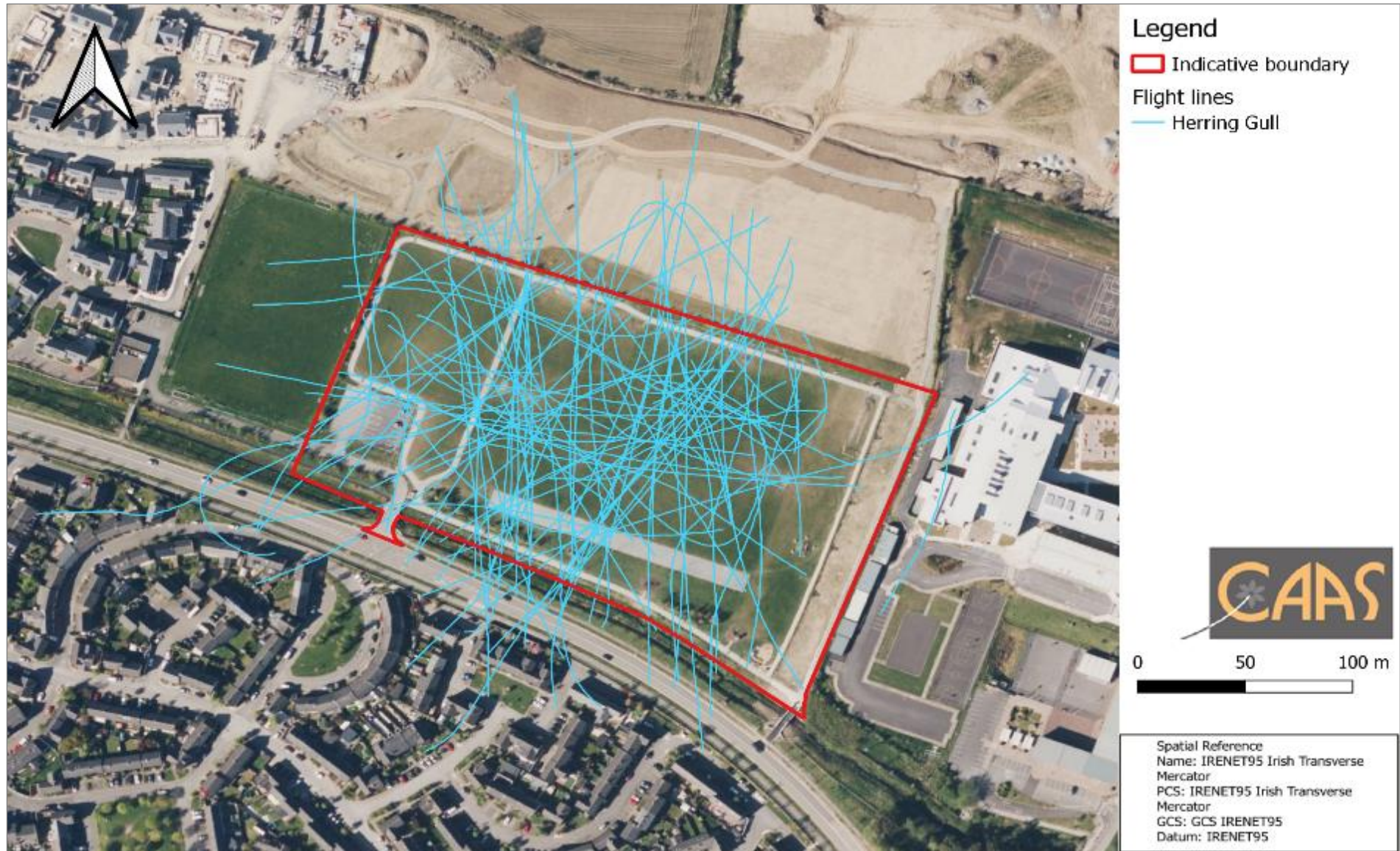


Figure 4.3 Herring Gull flight activity over the proposed development site



Figure 4.4 Black-headed Gull and Common Gull flight activity over the proposed development site



Figure 4.5 Curlew flight activity over the proposed development site



Figure 4.6 Black-headed Gull foraging areas within the proposed development site



Figure 4.7 Common Gull & Herring Gull foraging areas within the proposed development site

5. Screening for Appropriate Assessment

5.1. Introduction

This stage of the process identifies any likely significant effects on European sites arising from the project, either alone or in combination with other projects or plans. A series of questions are asked in order to determine:

- Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European site.
- Whether the project will have a potentially significant effect on a European site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential impacts.

An important element of the AA process is the identification of the "Conservation Objectives", "Qualifying Interests" (QIs) and/or "Special Conservation Interests" (SCIs) of European sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each Special Area of Conservation (SAC) has been designated and afforded protection under the Habitats Directive. SCIs are bird species listed within Annexes I and II of the Birds Directive for which each Special Protection Area (SPA) has been designated and afforded protection under the Habitats Directive. Under the requirements of the Habitats Directive, the threats and pressures on the ecological / environmental conditions that are required to support QIs and SCIs, with specific regard to the Conservation Objectives of each site, are considered as part of the assessment.

Site-Specific Conservation Objectives (SSCOs) have been designed to define favourable conservation status for a particular habitat or species at that site. According to the European Commission interpretation document 'Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC', paragraph 4.6(3):

"The integrity of a site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives."

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

5.2. Assessment criteria

5.2.1. Is the development necessary to the management of European sites?

Under the Habitats Directive, projects that are directly connected with or necessary to the management of a European site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s). The relationship should be shown to be direct and not a by-product of the project, even if this might result in positive or beneficial effects for a site(s).

The primary purpose of the proposed development is not the nature conservation management of the site, but to construct a Recreational Sports Hub at the Rathmore Park, Lusk, north County Dublin and all associated site works. Therefore, in the context of the Habitats Directive, the proposed development would not be considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

5.3. Characterising potential significant effects

This section details the parameters utilised by this AASR when assessing potential effects²¹.

- **Direct and Indirect Impacts** - An impact can be caused either as a direct or as an indirect consequence of a Plan/Project.
- **Magnitude** - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.
- **Extent** - The area over that the impact occurs – this should be predicted in a quantified manner.
- **Duration** - The time that the effect is expected to last prior to recovery or replacement of the resource or feature.
 - Temporary: Up to 1 Year;
 - Short Term: The effects would take 1-7 years to be mitigated;
 - Medium Term: The effects would take 7-15 years to be mitigated;
 - Long Term: The effects would take 15-60 years to be mitigated; and
 - Permanent: The effects would take 60+ years to be mitigated.
- **Likelihood** – The probability of the effect occurring taking into account all available information.
 - Certain/Near Certain: >95% chance of occurring as predicted;
 - Probable: 50-95% chance as occurring as predicted;
 - Unlikely: 5-50% chance as occurring as predicted; and
 - Extremely Unlikely: <5% chance as occurring as predicted.

The Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (2018) define an ecologically significant impact as: an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area; and the integrity of a site as the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

²¹ Parameters used have been adapted from the following guidance documents on the conduction Appropriate Assessments and Ecological Impact Assessments:

- Department of the Environment, Heritage and Local Government (2009) Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester; and,

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site.

SSCOs have been prepared for a number of European sites. These detailed SSCOs aim to define favourable conservation condition for the qualifying habitats and species at that site by setting targets for appropriate attributes which define the character habitat. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a species can be described as being achieved when: *‘population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.’*

Favourable conservation status of a habitat can be described as being achieved when: *‘its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable’.*

First Order Site-specific Conservation Objectives are designated by the NPWS for a number of European sites that SSCOs have yet to be prepared for.

A First Order Site-specific Conservation Objective for a SAC is provided below:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

A First Order Site-specific Conservation Objective for a SPA is provided below:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

5.3.1. Types of potential Effects

EC guidance²² outlines the types of effects that may affect European sites. These include effects from the following activities:

- Land take
- Resource requirements (drinking water abstraction etc.)
- Emissions (disposal to land, water or air)
- Excavation requirements (removal of soil and vegetation)
- Transportation requirements
- Duration of construction, operation, decommissioning

The 2001 European Commission AA guidance outlines the following potential changes that may occur at a designated site, which may result in effects on the Conservation Objectives of that site:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation

²² Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Environment DG, 2001

- Reduction in species density
- Changes in key indicators of conservation value (water quality etc.)
- Climate change

The elements detailed above were considered within the context of the European sites identified in this AASR (Figure 4.1 and Figure 4.2) below.

Loss/reduction of habitat area

There are no European sites present within the proposed development boundary. There will be a permanent loss of amenity grassland as a result of the proposed development, however during an initial ecological site visit and subsequent winter bird surveys carried out between November and January 2023/2024, this habitat was found not to have any significant value for supporting SCI species. The closest European sites to the proposed development site are, Rogerstown Estuary SAC (000208) and Rogerstown Estuary SPA (004015), at approx. 3 km from the proposed development site. There is a pathway for significant effects via a surface water course just south of the proposed development boundary (the Rathmooney (Bride) stream), and sediment/soil works run off during the construction phase as a result of the proposed development, which could result in potential effects to the nearby European sites leading to a loss/reduction in habitat area.

Habitat or species fragmentation

There will be a permanent loss of amenity grassland as a result of the proposed development, however this was found not to have any significant value for supporting SCI species during winter bird surveys carried out between November and January 2023/2024. Thus, there is no source for with a likelihood for significant effects in this regard. The Rathmooney (Bride) stream runs adjacent the south of the site and creates a direct hydrological connection with the Rogerstown Estuary SPA and SAC (approx. 3 km directly from the proposed development). These European sites contain habitats and species which are sensitive to water quality and siltation. Therefore, there is a pathway for significant effects via this surface water course, with potential sources including sediment/soil works run off during the construction phase, which could lead to a loss/reduction in habitat area.

Disturbance to key species

There will be an increase in noise and dust levels during the construction phase, but these will be negligible in terms of potential significant effects due to the small-scale and temporary duration of the construction phase, and the distance from European sites (the closest being approx. 3 km away). There will be a permanent loss of amenity grassland as a result of the proposed development, however this was found not to have any significant value for supporting SCI species during winter bird surveys carried out between November and January 2023/2024. The operational phase of the proposed development will not result in a significant increase in current noise and disturbance levels of the current site as the operational phase of the proposed development will be in keeping with the surrounding area. There will be an increase in operational phase lighting as a result of the proposed development, however the proposed development is part of a highly developed suburban area accustomed to light disturbance, and of sufficient distance from the nearest European sites and to deem this potential effect negligible.

Reduction in species density

The permanent loss of amenity grassland as a result of the proposed development will not result in any significant effects for SCI species densities in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.

Considering surface water run-off during the construction phase; the Rathmooney (Bride) stream borders the proposed development to the south. This drains into the Rogerstown Estuary SPA and SAC approx. 3 km downstream. Due to the close proximity of the Rathmooney (Bride) stream to the

proposed development, and the potential for earthworks run-off during the construction phase, there are sources for potential significant effects with regard to hydrological connectivity which have potential to reduce species density via a reduction in water quality for the Rogerstown Estuary, and the European sites therein. There is also indirect connectivity via urban surface water drainage, however there will be no significant change to surface water drainage infrastructure as a result of the proposed development (see above). Due to potential for hydrological effects, there is potential for a reduction in species density via water quality as a result of the proposed development.

Considering surface water run-off during the operational phase; an area of amenity grassland replaced by a mix of artificial permeable and impermeable surfaces. There will be a slight increase in the area of impermeable surfaces as the running track will be composed of impermeable surfaces, however this will make up a small area of the proposed development in the operational phase, and the new pitch will have a filter drain installed, which will collect and treat run off from the athletics track. As a result, in the operational phase the surfaces of the proposed development will be a mix of artificial permeable surfaces, impermeable surfaces, and amenity grassland, which will continue to percolate and attenuate surface the majority of pluvial water. Therefore, the change of some areas of the proposed development for this development from amenity grassland to artificial permeable surfaces is unlikely to introduce any likelihood for significant effects on species density.

Changes of indicators of conservation value

Water quality is an important indicator for Conservation Objectives of many European sites. As the Rathmooney (Bride) stream runs adjacent to the proposed development to the south, there is a source for effects via a surface hydrological connection between the proposed development and two European sites in the Rogerstown Estuary, approx. 3 km downstream. Due to the proximity to the Rathmooney stream, and the nature of the proposed development's construction phase, there are sources for potential significant effects during the construction phase due to run off and hydrological connectivity. There is also indirect connectivity via urban surface water drainage in the operational phase, however, any changes introduced to surface water run-off caused by replacing the lost amenity grassland with artificial permeable surfaces will not be significant due to the scale of the proposed areas for artificial pitches and running track. There is a possibility of the introduction of microplastics resulting from the proposed artificial playing pitches for the operational phase, however a microplastics filtration system will be installed for the all-weather playing pitch and running track. For the above reasons, there are sources with pathways for potential significant effects that may affect conservation indicators of European sites, such as water quality.

Climate change

The proposed development will result in a slight increase in greenhouse gas emissions during the construction phase, which will be localised and temporary. There will be no expected increase in emissions from the operational phase of the proposed development due to the nature of the proposed development, within an already highly frequented outdoor recreational area, within a suburban area. Given the small scale and temporary timeline of the proposed development's construction phase, the emissions from the construction phase are determined to be of such a minor scale that they will not affect changes projected to arise from climate change to the degree that it would affect the QIs or SCIs of the European sites considered.

5.4. Identification of potential effects of the proposed development

This part of the screening assessment process identifies whether the changes brought about by the proposed development may introduce sources with pathways for introducing direct, indirect or secondary potential effects (either alone or in combination with other plans or projects) on the European sites considered in this report, in the absence of any controls, conditions, or mitigation measures (as required for an AASR). A number of factors have been taken into account including the sites' conservation objectives and known threats. Certain standardised metrics are utilised in this AASR to describe and assess the potential effects, thus standardising the assessment process across

all plans and projects. These metrics are described, alongside the guidelines used in compiling them, in section 3.4 above.

The overall aim of the AASR is to predict the potential effects that can be reasonably foreseen to have a likelihood of causing potential significant effects to European sites as a result of the implementation of the proposed development.

The construction and operational phase elements of the proposed development with potential to introduce sources for effects to ecological processes are identified below. These will be discussed and considered for a likelihood of potential significant effects in view of the Special Conservation Interests, and Qualifying Interests of the European sites, and their sensitivities, and Qualifying Interests. Subsequently the potential effects with sources and pathways identified to have a likelihood for significant effects to European sites (if any) will be summarised.

5.4.1. Construction phase potential effects

The construction phase will be localised, small-scale and temporary. Considering the Zois and the source-pathway-receptor model, the potential effects identified from the construction phase of the proposed development are:

- Disturbance effects through noise;
- Dust; and
- Water quality (increased risk of sediment/surface run-off).

Disturbance effects through noise

The construction phase of the proposed development has potential for effects for disturbance through noise to ex-situ foraging SCI species. However, this potential effect via noise during the construction phase will be temporary (i.e., less than one year) and localised. SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{23,24}. These distances can vary due to factors such as species and/or time of year^{25,26}. Given that the closest SPA is the Rogerstown Estuary SPA, at approx. 3 km from the proposed development, it is deemed that this is sufficient distance to ensure that there is no likelihood for significant effects via construction phase noise disturbance during the construction phase of the proposed development.

Dust

There will be an increase in dust emissions during the construction phase of the proposed development only. The operational phase will not introduce any sources for effects in this regard. However, given the distances between the proposed development site and the closest European sites of approx. 3 km and a ZOI for dust of 1km for this project, in combination with the small scale of the proposed development and the temporary nature of the construction phase; it is deemed that there are no sources with pathways for likely significant effects via construction related dust as a result of the proposed development.

Water quality (increased risk of sediment/surface run-off)

A surface water course, the Rathmooney (Bride) stream, runs adjacent to the southern boundary of the proposed development site, and into the Rogerstown Estuary SAC and SPA, approx. 3 km from

²³ Rudock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

²⁴ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

²⁵ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. *Proceedings of the Royal Society B: Biological Sciences*, 284(1858), p.20170846.

²⁶ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. *Ibis*, 162(3), pp.845-862.

the proposed development site. The proposed development will have significant earthworks activity during the construction phase, with the removal of significant portions of grassland and works to introduce artificial permeable surfaces, thus introducing potential sources for effects such as surface water run-off from earthworks, which could interact with water quality and sensitive receptors of the Rodgerstown Estuary SAC downstream. In addition, the construction phase will involve the laying of artificial playing pitch surfaces which could result in the introduction of microplastic to the Rathmooney Stream via surface water runoff. Therefore, there are sources with pathways with a likelihood of significant effects via water quality and run off during the construction phase of the proposed development.

5.4.2. Operational phase potential effects

The operational phase effects will be localised, small-scale and permanent. Considering the Zols and the source-pathway-receptor model, the potential effects during the operational phase are identified as:

- Permanent loss of potential supporting (i.e., ex-situ foraging) habitat
- Surface water run-off

Loss of habitat

The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.

Surface water run-off

The operational phase of the proposed development does not introduce any sources for potential effects in this regard as it is in keeping with the current site use. There will be a slight increase in the area of impermeable surfaces as the running track will be composed of impermeable surfaces, however this new pitch will have a filter drain installed as part of the project design, which will collect and filter run off from the athletics track via a silt trap and sump, subsequently run off will connect with the Rathmooney Stream via an outfall installed as part of the project design (Figure 3.5 and Figure 3.6). This design will also include a microplastics filter, which is intended as compliance with a recent amendment made to the REACH Regulations²⁷ regarding the use of microplastics in artificial playing pitches, and therefore is not intended as a measure to avoid likely significant effects²⁸ of European sites. Therefore, surface water run-off in the operational phase is not foreseen to present a source for likely significant effects as a result of the proposed development.

5.4.3. Summary of potential significant effects

Therefore, for the purposes of this assessment report the proposed development, and considering the precautionary principle²⁹, the proposed development is identified as having sources with pathways with a likelihood for significant effects from the construction phase of the proposed development via water quality and increased sediment/surface run off, and operational phase via loss of potential ex-situ foraging habitat and potential disturbance from lighting.

Construction phase

- Water quality (increased risk of sediment/surface run-off)

²⁷ [Amendment to Annex XVII Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals \(REACH Regulation\) \(EC\) No 1907/2006](#)

²⁸ Case law: ([C-721/21 Eco Advocacy CLG](#))

²⁹ Case law: ([C127/02 Waddenzee](#)).

Operational phase

- None

The identified construction phase effects identified to have a likelihood for significant effects to European sites are considered in the context of European sites identified below, their sensitivities and Conservation Objectives in Table 5.1 below.

5.5. Screening of sites

This section of the report concerns the final stage of the screening process. Information has been collected and is presented on the sensitivity of each relevant European site (ref 2.3), and potential effects on each European site resulting from the proposed development have been identified (in s3.5 which assumed the absence of any controls, conditions, or mitigation measures, as required in AA screening). In determining the likelihood for potential for significant effects, a number of factors have been taken into account. First the sensitivity and reported threats to European sites and second, the individual elements of the proposed development and the potential significant effects they may cause on the sites, were considered. These factors are analysed as presented in Table 5.1.

Sites are screened out based on one or a combination of the following criteria:

- where it can be shown that there are no significant pathways such as hydrological links between activities of the proposed development and a site;
- where a site is located at such a distance from proposed development area that effects are not foreseen; and
- where known threats or vulnerabilities of a site cannot be linked to potential impacts that may arise from the proposed development.

Table 5.1 Screening assessment of the potential effects arising from the proposed development

Site code	Site name	Distance (km)	Qualifying feature ³⁰	Analysis for likely significant effects	Likelihood of significant effects	Likelihood of significant effects
000208	Rogerstown Estuary SAC	2.27	Salicornia and other annuals colonising mud and sand [1310], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SAC is sensitive to hydrological interactions, land use management, and groundwater interactions.</p> <p>The site is approx. 3 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There is a source for hydrological interactions during the construction phase due to the close proximity of the Rathmooney (Bride) stream to the proposed development. Run-off from earthworks during the construction phase may enter this stream and there is a likelihood of potential significant effects in this regard.</p> <p>Regarding groundwater interactions; the proposed development will not result in a significant change in surface water run-off, due to the amenity grassland being lost will be replaced with artificial permeable surfaces, and will not significantly change the volume of surface water run-off. Therefore, there is no likelihood for a pathway for effects to groundwater sensitive habitats as a result of the proposed development.</p> <p>As there are sources and pathways with a likelihood for significant effects to this European site via hydrology from the sources identified above, further consideration for mitigation is required. Therefore, under Article 6(3), and a Natura Impact Statement is required.</p>	Yes	Yes
004015	Rogerstown Estuary SPA	2.27	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Redshank (<i>Tringa totanus</i>) [A162], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Shelduck (<i>Tadorna</i>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4 this SPA is sensitive to disturbance effects, direct land use management and hydrological interactions.</p>	Yes	Yes

³⁰ Term used here to encompass both Qualifying Interests of SACs and Special Conservation Interests of SPAs

			<p><i>tadorna</i>) [A048], Shoveler (<i>Anas clypeata</i>) [A056], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Dunlin (<i>Calidris alpina</i>) [A149], Wetland and Waterbirds [A999], Knot (<i>Calidris canutus</i>) [A143], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Greylag Goose (<i>Anser anser</i>) [A043]</p>	<p>The site is approx. 3 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There is a source for hydrological interactions during the construction phase due to the close proximity of the Rathmooney (Bride) stream to the proposed development. Run-off from earthworks during the construction phase may enter the Rathmooney stream and this there is a likelihood of potential significant effects in this regard.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{31,32}. These distances can vary due to factors such as species and/or time of year^{33,34}. Given the distance between the SPA the proposed development there are no sources for potential effect in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>As there are sources and pathways with a likelihood for significant effects to this European site via hydrology from the sources identified above, further consideration for mitigation is required. Therefore, under Article 6(3), and a Natura Impact Statement is required.</p>		
004236	North-West Irish Sea cSPA ³⁵	4.69	<p>Common Tern (<i>Sterna hirundo</i>) [A193], Common Scoter (<i>Melanitta nigra</i>) [A065], Razorbill (<i>Alca torda</i>) [A200], Arctic Tern (<i>Sterna paradisaea</i>) [A194], Great Northern Diver (<i>Gavia immer</i>) [A003], Puffin (<i>Fratercula arctica</i>) [A204],</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4 this SPA is sensitive to disturbance effects, direct land use management and hydrological interactions.</p> <p>The site is approx. 3 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p>	Yes	Yes

³¹ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

³² Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

³³ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

³⁴ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

³⁵ This candidate SPA was designated on the 13th of July 2023, information on this site including Conservation Objectives and threats and pressures have yet to be published.

			<p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Red-throated Diver (<i>Gavia stellata</i>) [A001], Little Tern (<i>Sterna albifrons</i>) [A195], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Herring Gull (<i>Larus argentatus</i>) [A184], Great Black-backed Gull (<i>Larus marinus</i>) [A187], Guillemot (<i>Uria aalge</i>) [A199], Roseate Tern (<i>Sterna dougallii</i>) [A192], Kittiwake (<i>Rissa tridactyla</i>) [A188], Fulmar (<i>Fulmarus glacialis</i>) [A009], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Common Gull (<i>Larus canus</i>) [A182], Little Gull (<i>Larus minutus</i>) [A177], Manx Shearwater (<i>Puffinus puffinus</i>) [A013], Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p>	<p>There is a source for hydrological interactions during the construction phase due to the close proximity of the Rathmooney (Bride) stream to the proposed development. Run-off from earthworks during the construction phase may enter the Rathmooney stream and this there is a likelihood of potential significant effects in this regard.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{36,37}. These distances can vary due to factors such as species and/or time of year^{38,39}. Given the distance between the SPA the proposed development there are no sources for potential effect in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>As there are sources and pathways with a likelihood for significant effects to this European site via hydrology from the sources identified above, further consideration for mitigation is required. Therefore, under Article 6(3), and a Natura Impact Statement is required.</p>		
000205	Malahide Estuary SAC	5.89	<p>Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mudflats and sandflats not covered by seawater at low tide [1140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Atlantic salt</p>	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SAC is sensitive to direct land use management activities, hydrological and groundwater interactions.</p> <p>The site is 5.89 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are no direct or indirect surface hydrological pathways between the proposed development and the SAC and therefore no potential for significant effects via hydrological interactions.</p>	No	No

³⁶ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

³⁷ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

³⁸ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. *Proceedings of the Royal Society B: Biological Sciences*, 284(1858), p.20170846.

³⁹ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. *Ibis*, 162(3), pp.845

			meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330]	<p>Regarding groundwater interactions; the proposed development will not result in a significant change in surface water run-off, due to the amenity grassland being lost will be replaced with artificial permeable surfaces, and will not significantly change the volume of surface water run-off. Therefore, there is no likelihood for a pathway for effects to groundwater sensitive habitats as a result of the proposed development.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
004025	Malahide Estuary SPA	5.89	<p>Light-bellied Brent Goose (<i>Branta bernicla hrotta</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina</i>) [A149], Redshank (<i>Tringa totanus</i>) [A162], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Shelduck (<i>Tadorna tadorna</i>) [A048], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Pintail (<i>Anas acuta</i>) [A054], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Goldeneye (<i>Bucephala clangula</i>) [A067]</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 5.89 km from the proposed development. There are no sources for effect from direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>There are no direct or indirect surface hydrological pathways between the proposed development and the SPA and therefore no potential for significant effects via hydrological interactions.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{40,41}. These distances can vary due to factors such as species and/or time of year^{42,43}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys</p>	No	No

⁴⁰ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁴¹ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁴² Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁴³ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.		
003000	Rockabill to Dalkey Island SAC	5.91	Reefs [1170], Harbour porpoise (<i>Phocoena phocoena</i>) [1351]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4 , this SAC is sensitive to hydrological interactions and direct land use management activities.</p> <p>The site is 5.91 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>	No	No
004122	Skerries Islands SPA	6.05	Cormorant (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Turnstone (<i>Arenaria interpres</i>) [A169], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Purple Sandpiper (<i>Calidris maritima</i>) [A148]	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 6.05 km from the proposed development. There are no sources for effect from direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{44,45}. These distances can vary due to</p>	No	No

⁴⁴ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁴⁵ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

				<p>factors such as species and/or time of year^{46,47}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
004014	Rockabill SPA	7.53	<p>Common tern (<i>Sterna hirundo</i>) [A193], Roseate Tern (<i>Sterna dougallii</i>) [A192], Purple Sandpiper (<i>Calidris maritima</i>) [A148], Arctic tern (<i>Sterna paradisaea</i>) [A194]</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 7.53 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{48,49}. These distances can vary due to factors such as species and/or time of year^{50,51}. Given the distance between the</p>	No	No

⁴⁶ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁴⁷ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

⁴⁸ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁴⁹ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁵⁰ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁵¹ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				<p>proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
004069	Lambay Island SPA	9.18	<p>Greylag Goose (<i>Anser anser</i>) [A043], Guillemot (<i>Uria aalge</i>) [A199], Herring Gull (<i>Larus argentatus</i>) [A184], Puffin (<i>Fratercula arctica</i>) [A204], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Razorbill (<i>Alca torda</i>) [A200], Fulmar (<i>Fulmarus glacialis</i>) [A009], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Kittiwake (<i>Rissa tridactyla</i>) [A188]</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to disturbance effects, direct land use management and hydrological interactions.</p> <p>The site is 9.18 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{52,53}. These distances can vary due to factors such as species and/or time of year^{54,55}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p>	No	No

⁵² Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁵³ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁵⁴ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁵⁵ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				<p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
000204	Lambay Island SAC	9.23	<p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Harbour seal (<i>Phoca vitulina</i>) [1365], Reefs [1170], Grey seal (<i>Halichoerus grypus</i>) [1364]</p>	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4 this SAC is sensitive to hydrological interactions and direct land use management.</p> <p>The site is 9.23 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>	No	No
000199	Baldoyle Bay SAC	12.20	<p>Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Mudflats and sandflats not covered by seawater at low tide [1140]</p>	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SAC is sensitive to hydrological interactions and direct land use management.</p> <p>The site is 12.20 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p>	No	No

				<p>There are no direct or indirect surface hydrological pathways between the proposed development and the SAC and therefore no potential for significant effects via hydrological interactions.</p> <p>Therefore, there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
004016	Baldoye Bay SPA	12.28	<p>Grey Plover (<i>Pluvialis squatarola</i>) [A141], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Wetland and Waterbirds [A999], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Shelduck (<i>Tadorna tadorna</i>) [A048], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 12.28 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are no direct or indirect surface hydrological pathways between the proposed development and the SPA and therefore no potential for significant effects via hydrological interactions.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{56,57}. These distances can vary due to factors such as species and/or time of year^{58,59}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p>	No	No

⁵⁶ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁵⁷ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁵⁸ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁵⁹ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.		
004158	River Nanny Estuary and Shore SPA	13.61	<p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Sanderling (<i>Calidris alba</i>) [A144], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Knot (<i>Calidris canutus</i>) [A143], Wetland and Waterbirds [A999], Herring Gull (<i>Larus argentatus</i>) [A184]</p>	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 13.61 km from the proposed development. There are no sources for effect from direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{60,61}. These distances can vary due to factors such as species and/or time of year^{62,63}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p>	No	No

⁶⁰ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁶¹ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁶² Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁶³ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.		
004117	Ireland's Eye SPA	14.18	Kittiwake (<i>Rissa tridactyla</i>) [A188], Razorbill (<i>Alca torda</i>) [A200], Herring Gull (<i>Larus argentatus</i>) [A184], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Guillemot (<i>Uria aalge</i>) [A199]	<p>Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities.</p> <p>The site is 14.18 km from the proposed development. There are no sources for effect from direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{64,65}. These distances can vary due to factors such as species and/or time of year^{66,67}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{68,69}. These distances can vary due to factors such as species and/or time of year^{70,71}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. The operational phase</p>	No	No

⁶⁴ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁶⁵ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁶⁶ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁶⁷ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

⁶⁸ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

⁶⁹ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

⁷⁰ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

⁷¹ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

				<p>will result in the permanent loss of amenity grassland habitat. Special Conservation Interest (SCI) species regularly forage ex-situ from their designated site in inland agricultural and amenity grasslands. However, this will not result in any significant effects for SCI species in terms of ex-situ foraging as roosts as winter bird surveys carried out between November and December 2023/2024 found the habitat to have no significant value for foraging SCI species.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>		
002193	Ireland's Eye SAC	14.62	<p>Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], Perennial vegetation of stony banks [1220]</p>	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR), in consultation with their Conservation Objectives (Appendix IV), and the potential effects identified in S5.4, this SAC is sensitive to hydrological interactions and direct land use management activities.</p> <p>The site is 14.62 km from the proposed development. There are no sources for effect from direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>There are is an indirect surface hydrological pathway between the proposed development and the SAC via the marine environment, however considering the nature and small scale of the proposed development, and significant dilution factor within the marine environment, there is no sources with a likelihood for significant effects for hydrological interactions to this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for significant effects, and no further assessment is required.</p>	No	No

5.6. In-combination effects

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or projects that might, in combination with the plan or project, have potential for significant effects European sites.

Section 3.2 - receiving environment overview - identifies the overall characteristics of the area with respect to existing condition and general land use. For considerations of in combination with respect to emerging or recent developments a search of the Dept of Housing, Local Government and Heritage planning database was undertaken to identify relevant plans and programmes which relate to the Proposed development. All developments from the receiving area were considered; the area considered is defined by the authoring ecologist using criteria which depend on the characteristics of the Proposed development and the associated sources (identified above); these criteria include:

- Having direct or indirect connectivity to a European site;
- Being in close proximity to a European site;
- Being of a substantial scale relative to the conditions and/or current works taking place in the surrounding landscape;
- Having disperse emissions or far-reaching sources for effects;
- Having sources for effects to ecological connectivity.

These factors are considered in the context of characteristics of the proposed development and on this basis a search radius of 200 m, within the last 5 years⁷², was selected to be used to search for projects with applications to the local planning authority (i.e., Fingal County Council) within the receiving environment. Regarding applications made to the national planning body, An Bord Pleanála (ABP), a similar search radius of 200 m was used. The sources for potential significant effects are considered in combination with the potential sources for effects from the receiving environment for potential additive or interactive effects on the receiving environment.

Plans of relevance within the receiving environment or in-combination with effects arising from the proposed development:

- Fingal Development Plan 2023 - 2029
- Fingal Biodiversity Action Plan 2022-2030
- Fingal Climate Action Plan 2024-2029

The proposed development has a small-scale, temporary construction phase and the operational phase is consistent with the current site use. In combination with this, the land use zoning of the above Fingal Development Plan 2023 – 2029 (which has also undergone Appropriate Assessment), for the proposed development area is “OS – Open Space”⁷³, defined as “Preserve and provide for open space and recreational amenities”. As a result of these factors, it is not foreseen that proposed development will have any significant in-combination effects with the above plans.

Projects considered for possible in-combination effects from the proposed development:

To identify projects for consideration for the in-combination effects section, the Dept of Housing, Local Government and Heritage planning database and ABP were consulted used⁷⁴. A review of all

⁷² Planning applications have a standard lifespan of 5 years as per Section 40 (3)(b) of the Planning & Development Act 2000, as amended; therefore, these are viewed to be the 'live' applications, all other projects are considered as part of the site other than refused and withdrawn applications, as these would not have any in-combination effects

⁷³ Land use zoning in the Fingal Development Plan 2023 – 2029 for the Lusk area is available at: https://www.fingal.ie/sites/default/files/2023-08/Sheet6%20Lusk-Rush%202023%20-%202029_0.pdf

⁷⁴ Accessed at: <https://data-housing.gov.ie/opendata.arcgis.com/datasets/planning-application-sites-2010-onwards>; and <https://www.pleanala.ie/en-ie/home> on the 22nd March 2024

planning applications and cases within the identified zone was conducted focusing on all application within the past 5 years⁷⁵.

There are a number of other proposed developments in the vicinity of the proposed development including works which are at planning stage or underway on various sites. The database search found that the vast majority of projects within the area are relating to the construction and alteration of residential structures, all of which undergo Appropriate Assessment where required. Table 5.2 and Table 5.3 provide a list of the largest and most relevant proposed developments within 200 m of the proposed development from the local planning authority database and the ABP database respectively. The majority of these projects assessed water quality as part of their AA process and water quality is the main focus of this report.

There is also the possibility of cumulative/in-combination effects with other projects regarding the development of greenfield sites in the surrounding Fingal landscape (see s5.6) and the cumulative loss of ex-situ foraging habitat for SCI species of SPAs. However, the Fingal Biodiversity Action Plan 2023-2030⁷⁶ provides several objectives regarding the creation of ecological corridors, retention of agricultural habitat and retention of foraging lands for SCI species particularly surrounding the Rodgerstown Estuary and other sensitive sites for wintering species. The Plan is also conducting, at the time of writing this report, several studies in collaboration with academic institutions, which focus on uncovering what areas within the Fingal County landscape are of particular value to ex-situ foraging SCI species. The results of these studies will be used to inform developments in the Fingal County area in order to ensure the sensitive retention of habitats that are of value for foraging SCI species.

As sources with a likelihood for significant effects to European sites arising from the proposed development have been identified by this AASR regarding water quality, possible in-combination effects with larger local residential projects listed in Table 5.2 and Table 5.3 (such as F18A/0646, F23A/0503 and F20A/0523/ABP 310359) cannot be ruled out. Therefore under the precautionary principle⁷⁷, the proposed development required further assessment under a Stage 2 Natura Impact Statement is required.

⁷⁵ Planning applications have a standard lifespan of 5 years as per Section 40 (3)(b) of the Planning & Development Act 2000, as amended; therefore, these are viewed to be the 'live' applications, all other projects are considered as part of the site other than refused and withdrawn applications, as these would not have any in-combination effects

⁷⁶ Available [here](#)

⁷⁷ Case law: ([C127/02 Waddenzee](#)).

Table 5.2 Local planning applications⁷⁸ within the receiving environment of the proposed development⁷⁹

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of significant in-combination effects
<p>Project Code: F18A/0645</p> <p>Grant Date: 2019-12-19</p> <p>Project Area (sq m): 50103.80</p>	Grant Permission	The construction of 50 two storey houses comprising of 6 no. type A (5 bedroom houses); 16 no. type B (5 bedroom houses); 3 no. type C (4 bedroom houses); 25 no. type D (4 bedroom houses); together with a Crèche (172 GFA sqm) and ESB substation on lands accessed off the upgraded Raheny Lane, as approved by Reg. Ref. F15A/0480; to be further extended by a new 6m wide road with 2.5m combined footpath and cycle track. The development includes all associated site works and infrastructure which includes landscaped open spaces, internal roads, paths, public lighting, utilities, drainage and surface water attenuation. The open spaces include part of a new park and a new pedestrian access onto Rathmore Road.	Adjacent	Permission	<p>This is a medium-scale project for residential housing, with a short term (1-7 years) construction phase. The consent process for this project was subject to applicable EIA and AA requirements.</p> <p>The proposed development has been identified as having sources with pathways for likely significant effects to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via the Rathmooney (Bride) stream from sources such as earthworks, dust and surface water run-off, in the absence of mitigation.</p> <p>This project is within the same local area, however does not have any hydrological connectivity with any European sites. Therefore, considering the above, there are no sources with a likelihood for in combination effects to this European site as a result of the proposed development and no further assessment is required.</p>	No
<p>Project Code: F20A/0523</p> <p>Grant Date: 2021-11-23</p>	Grant Permission	Development on Lands to the east and west of Rathmore Road (R127) and at Lusk Co. Dublin. The proposed development (gross site area 3.5 HA) will consist of the construction of 84 No. residential dwellings across two plots of land, Rathmore East (gross area c.1796Ha) and 'Rathmore West' (gross area c. 1.288 Ha) and incorporates a section of Tyrellstown Road and Raheny roundabout to	1.34	Permission	<p>This is a medium-scale project for residential housing, with a short term (1-7 years) construction phase. The consent process for this project was subject to applicable EIA and AA requirements (see ABP case 310359 in Table 5.3 below also).</p> <p>The proposed development has been identified as having sources with pathways for likely significant effects to Rogerstown Estuary SAC, SPA and the</p>	Yes

⁷⁸ The majority of surrounding planning permissions are for developments which are minor projects with no risk of in-combination effects. Therefore, a summary list is provided here of the largest proposed schemes within the below stated parameters (i.e., excluding minor additions or edits to residential homes / existing planning permissions)

⁷⁹ Parameters used: planning application from within the last 5 years, within a radius of 200m around the proposed scheme boundary

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of significant in-combination effects
<p>Project Area (sq m): 36331.10</p>		<p>facilitate connections to municipal services, and parcel of land (c.04391 Ha) to the north of Rathmore road at Lusk North Park for class 1 open space. The proposed residential dwelling mix consists of 9 No. different two and three storey house types as follows: 4 No. 2-bedroom, 66 No. 3 - Bedroom and 14 No. 4 bedroom dwellings.</p> <p>'Rathmore East' will provide for 50 No. units and will be accessed via 1 No. new vehicular entrance from Tyrellstown Road and 2 No. pedestrian/cycle entrances from Rathmore Road. 'Rathmore West' will provide for 34 No. units and will be accessed via 2 No. new vehicular entrances from Raheny Close and Loughcommon Lane and 2 No. pedestrian /cycle entrances from Rathmore Road.</p> <p>The proposed development will include the provision of a total of 7,533 sq.m of landscaped public open space, private amenity space, associated boundary treatments; a total of 164 No. on curtilage car parking spaces, street lighting ESB substation, drainage and water supply infrastructure, and all ancillary site development works required to facilitate the proposed development. This Planning application is accompanied by a Natura Impact Statement (NIS).</p>			<p>North-West Irish Sea SPA via the Rathmooney (Bride) stream from sources such as earthworks, dust and surface water run-off, in the absence of mitigation.</p> <p>As this project is within the same local area, and is also has hydrological connectivity to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via connectivity with the Rathmooney (Bride) stream; sources with pathways for significant in-combination effects cannot be excluded, and further assessment is required.</p>	
<p>Project Code: F18A/0646</p> <p>Grant Date: 2019-12-19</p>	<p>Grant Permission</p>	<p>The construction of 39 two storey houses comprising 9 no. three bedroomed houses and 30 no. four bedroomed houses on lands north of Clonrath Avenue, Skerries Road, Lusk, Co Dublin. Vehicular access to the site is solely from Skerries Road. The development includes all associated site works and infrastructure which includes landscaped open spaces, internal roads, paths, public lighting, utilities,</p>	<p>Adjacent</p>	<p>Permission</p>	<p>This is a medium-scale project for residential housing, with a short term (1-7 years) construction phase. The consent process for this project was subject to applicable EIA and AA requirements.</p> <p>The proposed development has been identified as having sources with pathways for likely significant effects to Rogerstown Estuary SAC, SPA and the</p>	<p>Yes</p>

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of significant in-combination effects
Project Area (sq m): 34141.50		drainage and surface water attenuation. The open spaces include part of a new park and a new pedestrian access onto Rathmore Road			<p>North-West Irish Sea SPA via the Rathmooney (Bride) stream from sources such as earthworks, dust and surface water run-off, in the absence of mitigation.</p> <p>As this project is within the same local area, and is also has hydrological connectivity to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via connectivity with the Rathmooney (Bride) stream; sources with pathways for significant in-combination effects cannot be excluded, and further assessment is required.</p>	
Project Code: F23A/0503 Grant Date: NA Project Area (sq m): 27896.90	Seek clarification of additional Info.	Planning permission for the construction of 65 two storey family houses comprising 10 no. four bed roomed houses and 55 no. three-bed roomed houses. The development includes 111 on curtilage vehicle parking spaces, the installation of a new vehicular access to the lands from the R127 Skerries Road, the closing of an existing field access on the R127 Skerries road, the creation of a new pedestrian and cycle link from the development through to Clonrath Close, the creation of a new pedestrian link from the development to Rathmore Park, and new pedestrian path and associated landscaping in Rathmore Park. The development includes associated site works and infrastructure including landscaped open spaces, boundary treatments, internal roads, paths, public lighting, services, utilities, drainage and surface water attenuation and all ancillary and associated works.	54.61	Permission	<p>This is a medium-scale project for residential housing, with a short term (1-7 years) construction phase. The consent process for this project was subject to applicable EIA and AA requirements.</p> <p>The proposed development has been identified as having sources with pathways for likely significant effects to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via the Rathmooney (Bride) stream from sources such as earthworks, dust and surface water run-off, in the absence of mitigation.</p> <p>As this project is within the same local area, and is in close proximity to the the Rathmooney (Bride) stream which connects to the Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA; sources with pathways for significant in-combination effects cannot be excluded, and further assessment is required.</p>	Yes

Table 5.3 An Bord Pleanála planning applications⁸⁰ within the receiving environment of the proposed development⁸¹

An Bord Pleanála case ID	Description	Decision	Decision date	Distance from proposed development (m)	Characteristics of the potential interactions with the proposed development	Likelihood of significant in-combination effects
310359	Construction of 84 dwellings. A Natura Impact Statement (NIS) was submitted.	Contribution Appeal Decided	2021-09-28	1	<p>This is a medium-scale project for residential housing, with a short term (1-7 years) construction phase. The consent process for this project was subject to applicable EIA and AA requirements.</p> <p>The proposed development has been identified as having sources with pathways for likely significant effects to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via the Rathmooney (Bride) stream from sources such as earthworks, dust and surface water run-off, in the absence of mitigation.</p> <p>As this project is within the same local area, and is also has hydrological connectivity to Rogerstown Estuary SAC, SPA and the North-West Irish Sea SPA via connectivity with the Rathmooney (Bride) stream; sources with pathways for significant in-combination effects cannot be excluded, and further assessment is required.</p>	Yes

⁸⁰ List concerning applications which are of scale to be relevant for in-combination effects (i.e., excluding minor additions or edits to residential homes / existing planning permissions)

⁸¹ Parameters used: planning applications in the last 5 years, within a radius of 200m of the proposed development boundary

6. Appropriate Assessment Screening Report Conclusion

This Appropriate Assessment Screening Report, which has been produced in order to inform the competent authority on the AA process, has examined the likelihood of potential significant effects on European sites arising from the proposed Rathmore Recreational Sports Hub, alone or in-combination with other plans and projects, and evaluated the risk for potential effects in view of the Habitats Directive, taking account of the project characteristics, best information and data available regarding European sites, and in view of their Qualifying Interests, Special Conservation Interests, and their Conservation Objectives, and with regard to the precautionary principle, and has found that the proposed development has a likelihood of resulting in potential significant effects on 3 (no.) European sites, namely:

- Rogerstown Estuary SAC
- Rogerstown Estuary SPA
- North-West Irish Sea cSPA

Based on the findings of this Appropriate Assessment Screening Report, it is concluded that the proposed project:

- is not directly connected with or necessary to the management of a European site; and
- may have potential significant effects on the 3 (no.) European sites listed above, in the absence of mitigation measures.

Therefore, applying the precautionary principle⁸² and in accordance with Article 6(3) of the Habitats Directive, the potential for significant effects to European sites as a result of the implementation of the proposed Rathmore Recreational Sports Hub cannot be ruled out, and a Stage 2 AA is required to support the consent process for the proposed development.

⁸² Case law: ([C127/02 Waddenzee](#)).

7. Natura Impact Statement

7.1. Introduction

The AASR presented above has identified 3 (no.) European sites with potential to be adversely affected by the implementation of the proposed development (Table 7.1). Section 177T(1) and (2) of the planning legislation⁸³ provides that a NIS is ‘a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites’ and specifies that it ‘shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites’.

Thus, the objective of the Natura Impact Statement is to analyse the potential adverse effects identified, and determine whether the proposed development would have any residual adverse effects on the European site(s) identified, alone or in-combination with other plans or projects, in view of their Conservation Objectives, utilising best scientific knowledge, based on objective information of the proposed development, in the context of appropriate and tailored mitigation measures that were designed to address the identified potential adverse effects. The metrics presented in **sError! Reference source not found.** above are also utilised for the NIS when considering adverse effects upon the application of mitigation measures.

Detailed information relevant to the NIS for the European sites identified, that has been reviewed and utilised to inform the NIS includes the following:

- NPWS Site Synopses;
- NPWS Natura 2000 Standard Data Forms; and
- NPWS Conservation Objectives and supporting documents (Appendix IV).

7.2. Potentially affected European sites

In the absence of mitigation measures, and in view of each site’s qualifying interests, site sensitivities and conservation objectives, potential for adverse effects due to the implementation of the proposed development has been identified for the following European sites:

Table 7.1 European sites potentially affected by the proposed development

Site Code	Site Name	Distance (km)
000208	Rogerstown Estuary SAC	2.27
004015	Rogerstown Estuary SPA	2.27
004236	North-West Irish Sea cSPA	4.69

⁸³ Planning and Development Act 2000 (30/2000) (as amended)

Table 7.2 Characterisation of potential adverse effects on the qualifying features⁸⁴ of European sites⁸⁵

Site Code	Site Name	Qualifying Features ⁸⁴	Characterisation of potential adverse effects
000208	Rogerstown Estuary SAC	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Estuaries [1130]	<p>The known threats to this site are: Discharges, dispersed habitation, sea defence or coast protection works, tidal barrages, walking, horse riding and non-motorised vehicles, invasive non-native species, reclamation of land from sea, estuary or marsh, bait digging or collection, roads, motorways, use of biocides, hormones and chemicals, erosion, nautical sports, fertilisation, golf course, grazing</p> <p>The above pressures can be summarised into the following categories: pollution, human habitation, coastal protection works, amenity and leisure activities, invasive species, direct land use management, land take, built environment, agriculture.</p> <p>Due to the distance between this European site and the proposed development site, and the nature of the proposed development, the proposed development does not present any sources for effect from human habitation, coastal protection works, amenity and leisure activities, invasive species, direct land use management, land take, built environment or agriculture for this SPA. However, there is a direct hydrological connection between this European site and the proposed development site – and the nature of the proposed development introduces sources for potential effect via pollution via water quality and siltation.</p> <p>Thus, considering the nature of the proposed development, and the threats and sensitivities of the SCIs of this European site in the context of their Conservation Objectives (Appendix IV), the sources for adverse effects on this European site arising from the proposed development are:</p> <ul style="list-style-type: none"> Water quality (increased risk of sediment/surface run-off)
004015	Rogerstown Estuary SPA	Greylag Goose (<i>Anser anser</i>) [A043], Redshank (<i>Tringa totanus</i>) [A162], Dunlin (<i>Calidris alpina</i>) [A149], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Shelduck (<i>Tadorna tadorna</i>) [A048], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Wetland and Waterbirds [A999], Shoveler	<p>The known threats to this site are: Grazing, disposal of household or recreational facility waste, disposal of industrial waste, dispersed habitation, golf course, landfill, land reclamation and drying out, hunting, fertilisation, bait digging or collection, nautical sports, invasive non-native species</p> <p>These above pressures can be summarised into the following categories: agriculture, direct land use management, waste, pollution, human habitation, built environment, amenity and leisure activities, land take, invasive species.</p> <p>Due to the distance between this European site and the proposed development site, and the nature of the proposed development, the proposed development does not present any sources for effect from agriculture, direct land use management, waste, human habitation, built environment, amenity and leisure activities, land take or invasive species for this SAC. However, there is a direct hydrological connection between this European site and the proposed development site – and the nature of the proposed development introduces sources for potential effect via pollution via water quality and siltation.</p>

⁸⁴ Qualifying Interests or Special Conservation Interests⁸⁵ European sites brought to Stage 2 of the Appropriate Assessment process

Site Code	Site Name	Qualifying Features ⁸⁴	Characterisation of potential adverse effects
		<p>(<i>Anas clypeata</i>) [A056], Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p>	<p>Thus, considering the nature of the proposed development, and the threats and sensitivities of the QIs of this European site in the context of their Conservation Objectives (Appendix IV), the sources for adverse effects on this European site arising from the proposed development are:</p> <ul style="list-style-type: none"> Water quality (increased risk of sediment/surface run-off)
004236	North-West Irish Sea cSPA	<p>Common Tern (<i>Sterna hirundo</i>) [A193], Common Scoter (<i>Melanitta nigra</i>) [A065], Razorbill (<i>Alca torda</i>) [A200], Arctic Tern (<i>Sterna paradisaea</i>) [A194], Great Northern Diver (<i>Gavia immer</i>) [A003], Puffin (<i>Fratercula arctica</i>) [A204], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Red-throated Diver (<i>Gavia stellata</i>) [A001], Little Tern (<i>Sterna albifrons</i>) [A195], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Herring Gull (<i>Larus argentatus</i>) [A184], Great Black-backed Gull (<i>Larus marinus</i>) [A187], Guillemot (<i>Uria aalge</i>) [A199], Roseate Tern (<i>Sterna dougallii</i>) [A192], Kittiwake (<i>Rissa tridactyla</i>) [A188], Fulmar (<i>Fulmarus glacialis</i>) [A009], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Common Gull (<i>Larus canus</i>) [A182], Little Gull (<i>Larus minutus</i>) [A177], Manx Shearwater (<i>Puffinus puffinus</i>) [A013], Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p>	<p>The potential threats to this site are: Grazing, disposal of household or recreational facility waste, disposal of industrial waste, dispersed habitation, golf course, landfill, land reclamation and drying out, hunting, fertilisation, bait digging or collection, nautical sports, invasive non-native species</p> <p>These above pressures can be summarised into the following categories: agriculture, direct land use management, waste, pollution, human habitation, built environment, amenity and leisure activities, land take, invasive species.</p> <p>Due to the distance between this European site and the proposed development site, and the nature of the proposed development, the proposed development does not present any sources for effect from agriculture, direct land use management, waste, human habitation, built environment, amenity and leisure activities, land take or invasive species for this SAC. However, there is a direct hydrological connection between this European site and the proposed development site – and the nature of the proposed development introduces sources for potential effect via pollution via water quality and siltation.</p> <p>Thus, considering the nature of the proposed development, and the threats and sensitivities of the QIs of this European site, the sources for adverse effects on this European site arising from the proposed development are:</p> <ul style="list-style-type: none"> Water quality (increased risk of sediment/surface run-off)

8. Mitigation measures

This section outlines measures that need to be incorporated into the proposed development in order to mitigate the identified potential adverse effects on European sites.

In order to ensure that there will be no adverse effects to European sites the below stated mitigation measures have been devised and tailored for the proposed development, to be applied during the construction phase in order to reduce or avoid potential adverse effects from the identified sources from the proposed development on the integrity of the 3 (no.) European sites brought forward for consideration in this NIS, namely:

- Water quality (increased risk of sediment/surface run-off)

All other aspects of environmental controls and management related to the construction phase, which are not directly relevant to the NIS, such as general ecological measures, spillages, personnel, method statements etc. are provided in the accompanying CEMP.

8.1. Water quality (increased risk of sediment/surface run-off)

Sediment control

- Before any excavation takes place, a location for the storage of excavated soil materials will be chosen. This location will be outside the 15m ecological buffer zone, on a solid stable surface to minimise erosion, and in line with best practice construction methods and agreement of the Environmental Manager and Ecological Clerk of Works (EcOW) (see additional measures in s8.2 below for EcOW description).
- Storage of excavated material: when an appropriate location for the stockpiled material is chosen, the appropriate silt fencing will be put in place before any materials are excavated to surround the stockpiled material and inserted in accordance with best practice building standards, and a mesh type chosen that is suitable for the material type (or types, if segregated) excavated on site i.e., terrastop silt fencing or equivalent. This will be reviewed and approved by the Environmental Manager and EcOW.
- Double line of silt fencing will also be installed before any on site works or soil excavation takes place and remain in place for the duration of the construction works (see drawing 5988-04) which will be composed of two mesh sizes in accordance with best practice buildings standards i.e., terrastop silt fencing or equivalent:
 - the first silt fence (i.e., closest to the playing pitch construction area) will consist of a wider mesh that is in accordance with best practice buildings standards i.e., terrastop or equivalent, to the south of the site between existing berms; and,
 - the second silt fence will consist of a smaller mesh size and located between the first silt fence and the Rathmooney stream, just south of the existing path.
- All silt fencing on site will be regularly inspected and maintained in accordance with maintenance and response plan detailed in section 8 of this CEMP.
- All silt fencing will be installed in accordance with best practice buildings standards, i.e., terrastop or equivalent, and inspected by the Environmental Manager and EcOW.
- The time between excavation of soil and beginning of construction will be planned in order to reduce the time soil is exposed as much as possible to reduce soil exposure, risk of erosion and run-off.
- Excavation of materials will not take place within a 15m of the ecological buffer zone (measured from the top of the northern bank of the stream), as per drawing 5988-04 - except to install the proposed outfall from the development to the stream as per drawings M02127-09_DWG_101_1 and M02127-09_DWG_101_2 and to install a maintenance vehicle set down

area as per drawing 5988-04. These exceptions will only take place when all silt fencing is in place as described above, and both will be monitored by the EcOW.

- Vehicular movements will be restricted to the footprint of the permitted development.
- Machinery will not operate outside of demarcated areas.
- The appointed contractor and Environmental Manager will ensure that reuse of any on site material for the proposed development will be conducted under best practice construction methods (e.g., appropriate handling, processing, storage and segregation of the material).
- Excavations will be monitored by the Environmental Manager and EcOW to ensure that any contamination encountered are identified, segregated and stored in an area where there is no possibility of runoff generation or infiltration to ground or surface water drainage, and no cross-contamination with clean soils elsewhere throughout the site.
- All material/soil excavated during construction will be reused on site for localised landscaping and reprofiling.
- Plant and materials will be stored in approved locations only (such as the proposed development compound) and will not be positioned or trafficked in a manner that would surcharge existing or newly formed slopes.
- The potential for an exceedance of the retention capacity of the silt fencing through increased surface water flow during periods of prolonged and/or heavy storm rainfall will be mitigated by monitoring weather forecasts during the construction phase. The 24 hours advance meteorological forecasting service from Met Éireann will be consulted and this will inform a trigger response system. The trigger-response system will include the cessation of earthworks and traffic until the storm event / heavy rainfall event has passed, postponement of specific tasks, and monitoring the status of all mitigation measures (i.e., inspection of silt fences for damage or lagging or reduced retention capacity) after the storm event, and response measures put in place if needed in agreement with the EcOW and Environmental Manager.

Responsibility

- The EcOW will liaise with the Project Manager, Environmental Manager and the Construction Manager and monitor adherence to the agreed method statements and NIS mitigation measures on a daily basis.
- The Environmental Manager will monitor the site and the excavation areas and associated drainage.
- The Construction Manager will monitor vehicle movements throughout the construction phase.
- The Project Manager will oversee the phasing of the excavation and machinery movement across the site.
- Construction personnel will be informed of the measures to prevent pollution of water courses, including the 15m ecological buffer zone, set down areas, silt fencing areas and maintenance regimes.
- The Design Engineer will have responsibilities to ensure the engineering designs meet the EcOW's requirements and NIS mitigation measures.
- All responsibilities will be agreed with FCC, EcOW and the Appointed Contractor.

Other surface run-off (fuel and oils from construction machinery)

- The potential for hydrocarbons getting into the local watercourses will be mitigated by only refuelling construction machinery and vehicles in designated refuelling areas using a prescribed re-fuelling procedure agreed in advance with the Environmental Manager.

- Refuelling will be carried out using 110% capacity double banded mobile bowzers. The refuelling bowser will be operated by trained personnel. The bowser will have spill containment equipment which the operators will be fully trained in using.
- To reduce the potential for oil leaks, only vehicles and machinery will be allowed onto the site that are mechanically sound. An up-to-date service record will be required from the main contractor.
- Potential leaks from delivery vehicles will be reduced by visually inspecting all delivery vehicles for major leaks. Contractors supplying concrete and crushed stone to the site will be contractually required to supply their products using roadworthy vehicles.
- Should there be an oil leak or spill, the leak or spill will be contained immediately using oil spill kits.
- The Environmental Manager will be immediately informed of the oil leak/spill, and will assess the cause and the management of the clean-up of the leak or spill. They will inspect nearby drains for the presence of oil and initiate the clean-up if necessary.
- Immediate action will be facilitated by easy access to oil spill kits. An oil spill kit that includes absorbing pads and socks will be kept at the site compound and also in site vehicles and machinery.
- Correct action in the event of a leak or spill will be facilitated by training all vehicle/machinery operators in the use of the spill kits and the correct containment and cleaning up of oil spills or leaks. This training will be the responsibility of the Environmental Manager at site induction.
- In the event of a major oil spill, a company who provide a rapid response emergency service for major fuel spills will be immediately called for assistance, their contact details will be kept in the site office and in the spill kits kept in site vehicles and machinery.

Responsibilities

- The Construction Manager and Environmental Manager are responsible for ensuring Fuel and Oils are managed in line with this procedure. The Appointed Contractor, in updating the CEMP, must designate personnel to the tasks relating to Fuels and Oil, as outlined.
- Details and Responsibilities for fuel and oils management to be finalised by Construction Manager, in consultation with the Environmental Manager.

Reference: Best Practice Guidelines BPGCS005 – Oil Storage Guidelines (Enterprise Ireland).

8.2. Additional measures

Ecological clerk of works

A suitably qualified and experienced Ecological Clerk of Works (EcOW) will be appointed by the Client during the construction phase of the project. Duties will include the review of all method statements and monitoring of construction phase activities and measures to ensure all environmental controls and NIS mitigation measures are implemented in full. The EcOW shall also advise and monitor progress of site landscaping and planting.

Environmental emergency / spillage

In the event of an environmental emergency, all personnel will react quickly and adhere to this procedure.

All site personnel will be inducted in the provisions of the Emergency Response Plan. The following outlines some of the information, on the types of emergency, which must be communicated to site staff:

- Release of hazardous substance - Fuel or oil spill

- Concrete spill or release of concrete
- Flood event – extreme rainfall event
- Environmental buffers and exclusion zones breach
- Housekeeping of materials and waste storage areas breach
- Stop works order due to environmental issue or concern (threat to ecological feature)
- Fire on site (cross-reference site Safety Emergency Plan as appropriate)

If any of the above situations occur, the Emergency Response Plan is activated. The Environmental Manager will be responsible for overseeing the Emergency Response Plan (to be confirmed upon appointment of Contractor) and will be prepared and ready to implement the plan at all times. The Environmental Manager will be immediately informed and report to the scene. He/she must be aware of the:

- Nature of the situation – brief description of what has happened.
- Location of the incident.
- Whether any spill has been released.
- Whether the situation is under control.
- The Emergency Response Plan must be completed by the appointed Contractor and approved by the EcOW.

Oil Spillages

The following list outlines issues likely to be appropriate for inclusion in such a plan:

- Site staff will report the spillage immediately to the Environmental Manager or Construction Manager.
- The Environmental Manager will report the spillage to Inland Fisheries Ireland and Fingal County Council/ EcOW.
- Where possible, the source of pollution will be identified.
- Switch off all sources of ignition.
- Stop the spillage spreading.
- Use absorbent materials from the spill kit to mop up the spill (sand or absorbent materials should be used rather than detergents).
- Place boom across watercourse as a precaution.
- Do not wash spillage into drainage system.
- If the spill has already reached Surface water drainage, install absorbent materials in affected drainage pipes and excavate affected materials to skips.
- Shovel contaminated sand/earth/absorbent granules into sacks or skips.
- A specialist oil removal company should remove pooled oil.

Location of Emergency Spill Kits

- A map indicating the location of all emergency spill kits will be attached to the Emergency Response Plan document.
- Emergency oil spill kits will also be carried in all site vehicles and machinery and in the site office.

Contacts

As an Environmental Control Measure, the Environmental Manager will append the relevant contact details to the Emergency Response Plan document. Examples of such contact details include:

- Environmental Manager.
- Specialist oil removal Company.
- Fingal County Council.

- Inland Fisheries Ireland.
- National Parks and Wildlife Service.

Responsibility

- The Construction Manager & Environmental Manager will prepare an Emergency Response Plan to be ready to respond to any incident for review by the EcOW.
- All site personnel will report any spillages of oil or chemicals to the Environmental Manager and Construction Manager immediately.
- As appropriate, the Environmental Manager will report the spillage to the Regional Fisheries Board, local authority and any other relevant authority.

Details of Emergency Response Plans to be finalised by the Construction Manager and review by the EcOW.

9. Residual effects

In consideration of the QIs and SCIs of the following European sites brought forward for examination in this Natura Impact Assessment:

Site Code	Site Name	Distance (km)
000208	Rogerstown Estuary SAC	2.27
004015	Rogerstown Estuary SPA	2.27
004236	North-West Irish Sea cSPA	4.69

Including, their threats and pressures, Conservation Objectives, and sensitivities, as examined in Table 7.1, supported by the data and information provided by Appendices I – IV; the above mitigation measures are applied for the following adverse effect identified as arising from the construction and operational phases of the proposed development:

- Water quality (increased risk of sediment/surface run-off)

Upon application of these mitigation measures, the proposed development poses no risk of adverse residual effects on the conservation objectives, or the favourable conservation condition, of the qualifying interest habitats of the European sites brought forwards for examination in this Natura Impact Statement, in support of a Stage 2 AA process, either alone or in-combination with other plans or project.

10. Conclusion

A Natura Impact Statement to inform the competent authority on Stage 2 AA has been carried out and found that the implementation of the proposed Rathmore Recreational Sports Hub would have the potential to result in effects on the integrity of 3 (no.) European sites, if unmitigated.

The risks to the safeguarding and integrity of the qualifying interests, special conservation interests and conservation objectives of the European sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of potential effects and mitigate adverse effects where these cannot be avoided.

In-combination effects from interactions with other plans and projects have been considered in the assessment. The mitigation measures incorporated into the design of the proposed development allow a conclusion to be arrived at that there will be no adverse effects as a result of the proposed development either alone or in-combination with other plans/projects.

Having incorporated mitigation measures, it is concluded that the proposed development will not give rise to any effect on the ecological integrity of any European sites, alone or in combination with other plans or projects⁸⁶. This evaluation is made in view of the conservation objectives of the habitats or species for which these sites have been designated.

Following an examination, analysis and evaluation in view of best scientific knowledge, in view of objective information of the proposed development, in respect of the qualifying interests and special conservation interests of the relevant European Sites, and in view of each sites' conservation objectives; it is concluded, that upon the application of the appropriate mitigation measures stated herein which address the potential adverse effects identified, the proposed Rathmore Recreational Sports Hub does not pose a risk of any adverse effects (either direct or indirect), alone or in-combination with other plans or projects, to the integrity of the European Sites assessed.

⁸⁶ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the plan to proceed; and c) Adequate compensatory measures in place.

Appendix I Background information on European sites⁸⁷

Site Code	Site Name	Qualifying Feature	Pressure Codes	Known Sensitivities / Threats and Pressures
000199	Baldoyle Bay SAC	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Salicornia and other annuals colonising mud and sand [1310], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Mudflats and sandflats not covered by seawater at low tide [1140]	G01.01.02, F03.01, J02.01.02, X, K03.06, D01.02, G02.01, E01, F02.03.01, I01, E03, K02.03, G01.02	Non-motorized nautical sports, hunting, reclamation of land from sea, estuary or marsh, no threats or pressures, antagonism with domestic animals, roads, motorways, golf course, urbanised areas, human habitation, bait digging or collection, invasive non-native species, discharges, eutrophication (natural), walking, horse-riding and non-motorised vehicles
000204	Lambay Island SAC	Harbour seal (<i>Phoca vitulina</i>) [1365], Reefs [1170], Grey seal (<i>Halichoerus grypus</i>) [1364], Vegetated Sea cliffs of the Atlantic and Baltic coasts [1230]	A04, G01.01, F03.01, F02.03, A03, X, E01, E02	Grazing, nautical sports, hunting, leisure fishing, mowing or cutting of grassland, no threats or pressures, urbanised areas, human habitation, industrial or commercial areas
000205	Malahide Estuary SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Salicornia and other annuals colonising mud and sand [1310]	I01, D01.02, G01.01, G02.01, G01.02, E01, J02.01.02, F03.01, D01.05, A08, X, G01.03	Invasive non-native species, roads, motorways, nautical sports, golf course, walking, horse-riding and non-motorised vehicles, urbanised areas, human habitation, reclamation of land from sea, estuary or marsh, hunting, bridge, viaduct, fertilisation, no threats or pressures, motorised vehicles
000208	Rogerstown Estuary SAC	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Estuaries [1130], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mudflats and sandflats not covered by seawater at low tide [1140]	J02.01.02, E03, A04, X, G01.01, K01.01, D01.02, F02.03.01, A08, E01.03, I01, G01.02, G02.01, A07, J02.12.01	Reclamation of land from sea, estuary or marsh, discharges, grazing, no threats or pressures, nautical sports, erosion, roads, motorways, bait digging or collection, fertilisation, dispersed habitation, invasive non-native species, walking, horse-riding and non-motorised vehicles, golf course, use of biocides, hormones and chemicals, sea defence or coast protection works, tidal barrages
002193	Ireland's Eye SAC	Perennial vegetation of stony banks [1220], Vegetated Sea cliffs of the Atlantic and Baltic Coasts [1230]	G05.01, G01.02, J01, X, A04.03, G01.01, G02.09	Trampling, overuse, walking, horse-riding and non-motorised vehicles, fire and fire suppression, no threats or pressures, abandonment of pastoral

⁸⁷ That have functional connectivity (ecological pathways) to the proposed development area including their Qualifying Interests, known threats and pressures

Site Code	Site Name	Qualifying Feature	Pressure Codes	Known Sensitivities / Threats and Pressures
				systems lack of grazing, nautical sports, wildlife watching
003000	Rockabill to Dalkey Island SAC	Harbour porpoise (<i>Phocoena phocoena</i>) [1351], Reefs [1170]	E03, D03.02, X, F02.02, J02.02, J02.11, D02, H06.01	Discharges, shipping lanes, no threats or pressures, professional active fishing, removal of sediments (mud...), siltation rate changes, dumping, depositing of dredged deposits, utility and service lines, noise nuisance, noise pollution
004014	Rockabill SPA	Arctic tern (<i>Sterna paradisaea</i>) [A194], Roseate Tern (<i>Sterna dougallii</i>) [A192], Purple Sandpiper (<i>Calidris maritima</i>) [A148], Common tern (<i>Sterna hirundo</i>) [A193]	G01.01, D06	Nautical sports, other forms of transportation and communication
004015	Rogerstown Estuary SPA	Shoveler (<i>Anas clypeata</i>) [A056], Dunlin (<i>Calidris alpina</i>) [A149], Wetland and Waterbirds [A999], Knot (<i>Calidris canutus</i>) [A143], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Greylag Goose (<i>Anser anser</i>) [A043], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Redshank (<i>Tringa totanus</i>) [A162], Shelduck (<i>Tadorna tadorna</i>) [A048], Grey Plover (<i>Pluvialis squatarola</i>) [A141]	A04, E01.03, J02.01, E03.01, G01.01, G02.01, A08, F03.01, E03.02, F02.03.01, I01	Grazing, dispersed habitation, landfill, land reclamation and drying out, general, disposal of household or recreational facility waste, nautical sports, golf course, fertilisation, hunting, disposal of industrial waste, bait digging or collection, invasive non-native species
004016	Baldoyle Bay SPA	Grey Plover (<i>Pluvialis squatarola</i>) [A141], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Shelduck (<i>Tadorna tadorna</i>) [A048], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Wetland and Waterbirds [A999], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674]	K02.03, F02.03.01, G02.01, J02.01.02, D01.02, G01.02, I01, A08, E01, F03.01	Eutrophication (natural), bait digging or collection, golf course, reclamation of land from sea, estuary or marsh, roads, motorways, walking, horse-riding and non-motorised vehicles, invasive non-native species, fertilisation, urbanised areas, human habitation, hunting
004025	Malahide Estuary SPA	Goldeneye (<i>Bucephala clangula</i>) [A067], Knot (<i>Calidris canutus</i>) [A143], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Dunlin (<i>Calidris alpina</i>) [A149], Redshank (<i>Tringa totanus</i>) [A162], Pintail (<i>Anas acuta</i>) [A054], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Shelduck (<i>Tadorna tadorna</i>) [A048], Golden Plover (<i>Pluvialis apricaria</i>) [A140]	A08, E02, J02.01.02, D01.01, D01.04, G01.01, E01, G01.02, D01.05, I01	Fertilisation, industrial or commercial areas, reclamation of land from sea, estuary or marsh, paths, tracks, cycling tracks, railway lines, tgv, nautical sports, urbanised areas, human habitation, walking, horse-riding and non-motorised vehicles, bridge, viaduct, invasive non-native species

Site Code	Site Name	Qualifying Feature	Pressure Codes	Known Sensitivities / Threats and Pressures
004069	Lambay Island SPA	Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Razorbill (<i>Alca torda</i>) [A200], Fulmar (<i>Fulmarus glacialis</i>) [A009], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalge</i>) [A199], Herring Gull (<i>Larus argentatus</i>) [A184], Puffin (<i>Fratercula arctica</i>) [A204], Greylag Goose (<i>Anser anser</i>) [A043]	A03, A04, E01.03, F03.01, D03.02, G01.01	Mowing or cutting of grassland, grazing, dispersed habitation, hunting, shipping lanes, nautical sports
004117	Ireland's Eye SPA	Kittiwake (<i>Rissa tridactyla</i>) [A188], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Guillemot (<i>Uria aalge</i>) [A199], Razorbill (<i>Alca torda</i>) [A200], Herring Gull (<i>Larus argentatus</i>) [A184]	F02.03, G01.02	Leisure fishing, walking, horse-riding and non-motorised vehicles
004122	Skerries Islands SPA	Cormorant (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Turnstone (<i>Arenaria interpres</i>) [A169], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Purple Sandpiper (<i>Calidris maritima</i>) [A148]	G01.02	Walking, horse-riding and non-motorised vehicles
004158	River Nanny Estuary and Shore SPA	Golden Plover (<i>Pluvialis apricaria</i>) [A140], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Sanderling (<i>Calidris alba</i>) [A144], Herring Gull (<i>Larus argentatus</i>) [A184], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Knot (<i>Calidris canutus</i>) [A143], Wetland and Waterbirds [A999]	G01.02, E01.01	Walking, horse-riding and non-motorised vehicles, continuous urbanisation
004236	North-West Irish Sea cSPA	Guillemot (<i>Uria aalge</i>) [A199], Common Scoter (<i>Melanitta nigra</i>) [A065], Razorbill (<i>Alca torda</i>) [A200], Arctic Tern (<i>Sterna paradisaea</i>) [A194], Common Tern (<i>Sterna hirundo</i>) [A193], Puffin (<i>Fratercula arctica</i>) [A204], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Red-throated Diver (<i>Gavia stellata</i>) [A001], Little Tern (<i>Sterna albifrons</i>) [A195], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Herring Gull (<i>Larus argentatus</i>) [A184], Great Black-backed Gull (<i>Larus marinus</i>) [A187], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Roseate Tern (<i>Sterna dougallii</i>) [A192], Kittiwake (<i>Rissa tridactyla</i>) [A188], Fulmar (<i>Fulmarus glacialis</i>) [A009], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Great Northern Diver (<i>Gavia immer</i>) [A003], Little Gull (<i>Larus minutus</i>) [A177], Manx Shearwater (<i>Puffinus puffinus</i>) [A013], Common Gull (<i>Larus canus</i>) [A182]	N/A	N/A

Appendix II Qualifying Interests of SACs that have undergone assessment⁸⁸

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[1130]	Estuaries	Most of the pressures on estuaries come from various sources of pollution, including domestic wastewater, agriculture and marine aquaculture. Alien invasive species such as the naturalised Pacific oyster (<i>Magalana gigas</i>) are also recognised as a significant pressure	A28, F20, G16, I02, XU	Agricultural activities generating marine pollution, residential or recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine aquaculture generating marine pollution, other invasive alien species (other than species of union concern), unknown pressure	Inappropriate development, changes in turbidity
[1140]	Mudflats and sandflats not covered by seawater at low tide	Pressures on mudflats and sandflats are partly caused by pollution from agricultural, forestry and wastewater sources, as well as impacts associated with marine aquaculture, particularly the Pacific oyster (<i>Magallana gigas</i>).	A28, F20, G16	Agricultural activities generating marine pollution, residential or recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine aquaculture generating marine pollution	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
[1170]	Reefs	The main pressures on reefs come from fishing methods that damage the seafloor.	G01, G03	Marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species, marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats	Sensitive to disturbance and pollution.
[1220]	Perennial vegetation of stony banks	The main pressures on this habitat are associated with coastal defences (which can interfere with sediment dynamics), recreation and shingle removal.	C01, E01, F07, F08, F09, I02	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity and gravel removal.

⁸⁸ Including known treats and pressures and sensitivities of qualifying interests

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
				defence or coast protection works and infrastructures), deposition and treatment of waste/garbage from household/recreational facilities, other invasive alien species (other than species of union concern)	
[1230]	Vegetated sea cliffs of the Atlantic and Baltic coasts	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change.	C01, E01, F07, F08, I02, N03, N04	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), increases or changes in precipitation due to climate change, sea-level and wave exposure changes due to climate change	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.
[1310]	Salicornia and other annuals colonising mud and sand	Pressures on Salicornia mud are caused by alien species and overgrazing by livestock	A09, I02	Intensive grazing or overgrazing by livestock, other invasive alien species (other than species of union concern)	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
[1330]	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)	The main pressures on Atlantic salt meadows are from agriculture, including ecologically unstable grazing regimes and land reclamation, and the invasive non-native species common cord-grass (<i>Spartina anglica</i>).	A09, A33, A36, F07, F08, I02	Intensive grazing or overgrazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern)	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[1351]	Harbour Porpoise (<i>Phocoena phocoena</i>)	Pressures acting on this species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal by fisheries.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Sensitive to disturbance, prey availability and pollution.
[1364]	Grey Seal (<i>Halichoerus grypus</i>)	Pressures on this species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal by fisheries or by-catch in fisheries.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Prey availability, reduction in available habitat and water quality.
[1365]	Harbour Seal (<i>Phoca vitulina</i>)	Pressures on this species in Irish waters mainly involve commercial vessel-based activities such as local/regional prey removal by fisheries or by-catch in fisheries, or geophysical seismic exploration; other possible impacts may occur from coastal tourism and localised human disturbance at haul-out sites.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Prey availability, reduction in available habitat and water quality.
[1410]	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Most of the pressures on Mediterranean salt meadows are associated with agriculture, including overgrazing, under-grazing and land reclamation.	A09, A10, A33, A36	Intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[2120]	Shifting dunes along the shoreline with white dunes (<i>Ammophila arenaria</i>)	Most of the pressures on marram dunes are caused by the interference on sediment dynamics due to recreation and coastal defences.	E01, E03, F01, F06, F07, F08, I02, L01	Roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), shipping lanes, ferry lanes and anchorage infrastructure (e.g., canalisation, dredging), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions), development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization)	Overgrazing, and erosion. Changes in management.
[2130]	Fixed coastal dunes with herbaceous vegetation (<i>grey dunes</i>)	Pressures on fixed dunes are associated with recreation and ecologically unsuitable grazing practices.	A02, A09, A10, F07, F08, I02, L02	Conversion from one type of agricultural land use to another (excluding drainage and burning), intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Overgrazing, and erosion. Changes in management.

Appendix III Special Conservation Interests of SPAs that have undergone assessment⁸⁹

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A003	Common Loon	<i>Gavia immer</i>	C03, F02, G01, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution
A009	Northern Fulmar	<i>Fulmarus glacialis</i>	C03, F02	Renewable abiotic energy use, fishing and harvesting aquatic resources
A013	Manx Shearwater	<i>Puffinus puffinus</i>	C03, H03, I01	Renewable abiotic energy use, marine water pollution, invasive non-native species
A017	Cormorant	<i>Phalacrocorax carbo carbo</i>	C03, F02, F03, G01, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, marine water pollution
A018	Shag	<i>Phalacrocorax aristotelis</i>	C03, H03	Renewable abiotic energy use, marine water pollution
A043	Greylag Goose	<i>Anser anser</i>	A02, A11, C03, D02, F03, G01, H07	Modification of cultivation practices, agriculture activities not referred to above, renewable abiotic energy use, utility and service lines, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, other forms of pollution
A048	Common Shelduck	<i>Tadorna tadorna</i>	F01, F02, G01, H03, M01	Marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A054	Northern Pintail	<i>Anas acuta</i>	C03, F01, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, human induced changes in hydraulic conditions
A056	Northern Shoveler	<i>Anas clypeata</i>	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution

⁸⁹ Including known treats and pressures of SCIs

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A067	Common Goldeneye	<i>Bucephala clangula</i>	C03, F01, F03, G01, H01, H03, H07, M02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, changes in biotic conditions
A069	Red-Breasted Merganser	<i>Mergus serrator</i>	C03, F01, F02, G01, H03	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution
A130	Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	C03, F01, F02, G01, H03, J02	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions
A137	Common Ringed Plover	<i>Charadrius hiaticula</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A140	European Golden Plover	<i>Pluvialis apricaria</i>	A02, A04, B01, C01, C03, F01, G01, H03, J01, K03, M02	Modification of cultivation practices, grazing, forest planting on open ground, mining and quarrying, renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, fire and fire suppression, interspecific faunal relations, changes in biotic conditions
A141	Grey Plover	<i>Pluvialis squatarola</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A143	Red Knot	<i>Calidris canutus</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A144	Sanderling	<i>Calidris alba</i>	C03, F01, G01, H03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A148	Purple Sandpiper	<i>Calidris maritima maritima</i>	C03, G01, H03, J03, M01	Renewable abiotic energy use, outdoor sports and leisure activities, recreational activities, marine water pollution, other ecosystem modifications, changes in abiotic conditions

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A149	Dunlin	<i>Calidris alpina</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A157	Bar-Tailed Godwit	<i>Limosa lapponica</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A162	Common Redhank	<i>Tringa totanus</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A169	Ruddy Turnstone	<i>Arenaria interpres</i>	C03, F01, G01, H03, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A177	Little Gull	<i>Larus minutus</i>	Xxp/Xxt	No threats and pressures identified by the npws
A179	Black-Headed Gull	<i>Larus ridibundus</i>	A04, C03, F02, H03, J03, M01	Grazing, renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A182	Common Gull	<i>Larus canus</i>	A04, C03, F02, H03, J03, M01	Grazing, renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A183	Lesser Black-Backed Gull	<i>Larus fuscus</i>	C03, F02, H03, J03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications
A184	European Herring Gull	<i>Larus argentatus</i>	C03, F02, H03, J03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications
A187	Great Black-Backed Gull	<i>Larus marinus</i>	Xxp/Xxt	No threats and pressures identified by the npws
A188	Black-Legged Kittiwake	<i>Rissa tridactyla</i>	C03, F02, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A192	Roseate Tern	<i>Sterna dougallii dougallii</i>	C03, D01, G01, I01	Renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, invasive non-native species
A193	Common Tern	<i>Sterna hirundo</i>	C03, D01, D03, G01, I01	Renewable abiotic energy use, roads, paths and railroads, shipping lanes, ports, marine constructions, outdoor sports and leisure activities, recreational activities, invasive non-native species
A194	Arctic Tern	<i>Sterna paradisaea</i>	C03, D01, G01, I01, M01	Renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, invasive non-native species, changes in abiotic conditions
A200	Razorbill	<i>Alca torda</i>	C03, H03	Renewable abiotic energy use, marine water pollution
A204	Atlantic Puffin	<i>Fratercula arctica</i>	C03, H03, I01	Renewable abiotic energy use, marine water pollution, invasive non-native species
A674	Light-Bellied Brent Goose	<i>Branta bernicla hrota</i>	A02, A11, C03, D02, F01, G01, G05, H03, H07, I01, J03	Modification of cultivation practices, agriculture activities not referred to above, renewable abiotic energy use, utility and service lines, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, other human intrusions and disturbances, marine water pollution, other forms of pollution, invasive non-native species, other ecosystem modifications

Appendix IV Conservation Objectives References⁹⁰

- NPWS (2012) Conservation Objectives for Baldoyle Bay SAC [IE0000199] Version 1.
NPWS (2013) Conservation Objectives for Lambay Island SAC [IE0000204] Version 1.
NPWS (2013) Conservation Objectives for Malahide Estuary SAC [IE0000205] Version 1.
NPWS (2013) Conservation Objectives for Rogerstown Estuary SAC [IE0000208] Version 1.
NPWS (2017) Conservation Objectives for Ireland's Eye SAC [IE0002193] Version 1.
NPWS (2013) Conservation Objectives for Rockabill to Dalkey Island SAC [IE0003000] Version 1.
NPWS (2013) Conservation Objectives for Rockabill SPA [IE0004014] Version 1.
NPWS (2013) Conservation Objectives for Rogerstown Estuary SPA [IE0004015] Version 1.
NPWS (2013) Conservation Objectives for Baldoyle Bay SPA [IE0004016] Version 1.
NPWS (2013) Conservation Objectives for Malahide Estuary SPA [IE0004025] Version 1.
NPWS (2022) First Order Site-specific Conservation Objectives for Lambay Island SPA [IE0004069] Version 1.
NPWS (2022) First Order Site-specific Conservation Objectives for Ireland's Eye SPA [IE0004117] Version 1.
NPWS (2022) First Order Site-specific Conservation Objectives for Skerries Islands SPA [IE0004122] Version 1.
NPWS (2012) Conservation Objectives for River Nanny Estuary and Shore SPA [IE0004158] Version 1.

⁹⁰ NPWS/Department of Culture, Heritage and the Gaeltacht

Appendix V Wintering bird survey metadata

Site	VP location	Weather overview	Surveyor	Survey date	Survey start time ⁹¹	Survey end time ⁹¹	General disturbance notes	Cloud Cover	Rain	Wind	Visibility	Temp (deg. C)
Rathmore park	Car park	Moderate to strong wind and cold temperature.	Laurance Manning	23/11/2023	09:30	17:00	Joggers at edge. 10:00 school football games started on pitch. 10:30 field vacated by school children. Constant dog walkers. 14:10 children leave school across field.	66-100	None	Moderate - strong breeze	Good	>10
Rathmore park	Car park	Wet with drizzle, mild in temp and light wind	Laurance Manning	07/12/2023	09:38	17:00		66-100	Drizzle	Light breeze	Moderate	>10
Rathmore park	Car park	Cool with a light wind and overcast. No rain.	Laurance Manning	08/12/2023	09:04	16:30		66-100	None	Light breeze	Good	0-10
Rathmore park	Car park	Windy cold and overcast with some sunshine breaking through	Laurance Manning	09/01/2024	09:38	16:30	Mostly dog walkers and joggers	66-100	None	Moderate breeze	Good	0-10
Rathmore park	Car park	Cold, gentle breeze. Overcast.	Laurance Manning	10/01/2024	09:35	16:35	Busy with dog walkers and joggers	66-100	None	Light breeze	Good	0-10
Rathmore park	Car park	Bright with little cloud. Mild temp with slight breeze	Laurance Manning	18/02/2024	10:08	17:30		0-33	None	Calm	Good	>10

⁹¹ Surveyor paused surveys every 3 hours for breaks / as appropriate for the surveys on the day (e.g., in the case of adverse weather conditions) – with a maximum of 6 hours surveying carried out in one day

Appendix VI Wintering bird survey data – foraging within proposed development

SCI species? Y/N	Species	No. of individuals foraging	Date	Notes (Direction / Disturbance)
Y	Black-headed Gull	3	23 November 2023	
Y	Black-headed Gull	3	23 November 2023	
N	Goldfinch	9	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	2	23 November 2023	
N	Hooded Crow	1	23 November 2023	
N	Hooded Crow	5	23 November 2023	
N	Jackdaw	7	23 November 2023	
N	Magpie	1	23 November 2023	
N	Pied Wagtail	1	23 November 2023	
N	Pied Wagtail	1	23 November 2023	
N	Pied Wagtail	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	5	23 November 2023	
N	Rook	7	23 November 2023	
N	Rook	15	23 November 2023	
N	Rook	23	23 November 2023	
N	Rook	34	23 November 2023	
N	Song Thrush	1	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	65	23 November 2023	
N	Starling	95	23 November 2023	

N	Starling	120	23 November 2023	
N	Starling	200	23 November 2023	
N	Starling	250	23 November 2023	
N	Wren	1	23 November 2023	
N	Wren	2	23 November 2023	
Y	Black-headed Gull	1	7 December 2023	
Y	Black-headed Gull	1	7 December 2023	
Y	Black-headed Gull	1	7 December 2023	
Y	Black-headed Gull	2	7 December 2023	
Y	Black-headed Gull	2	7 December 2023	S
Y	Black-headed Gull	11	7 December 2023	
Y	Common Gull	12	7 December 2023	
N	Great Tit	1	7 December 2023	S
N	Great Tit	1	7 December 2023	
Y	Herring Gull	1	7 December 2023	
Y	Herring Gull	2	7 December 2023	
Y	Herring Gull	2	7 December 2023	
N	Hooded Crow	1	7 December 2023	
N	Jackdaw	1	7 December 2023	
N	Jackdaw	1	7 December 2023	
N	Jackdaw	1	7 December 2023	
N	Jackdaw	2	7 December 2023	
N	Jackdaw	2	7 December 2023	
N	Jackdaw	4	7 December 2023	
N	Jackdaw	14	7 December 2023	
N	Long-tailed Tit	2	7 December 2023	
N	Long-tailed Tit	10	7 December 2023	
N	Pied Wagtail	1	7 December 2023	
N	Pied Wagtail	2	7 December 2023	

N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	school finishes and fills playing pltch at 15:30
N	Rook	2	7 December 2023	
N	Rook	2	7 December 2023	
N	Rook	3	7 December 2023	
N	Rook	3	7 December 2023	
N	Rook	3	7 December 2023	
N	Rook	5	7 December 2023	
N	Rook	5	7 December 2023	
N	Rook	27	7 December 2023	
N	Song Thrush	1	7 December 2023	W
N	Starling	1	7 December 2023	
N	Starling	2	7 December 2023	
N	Starling	5	7 December 2023	N
N	Starling	9	7 December 2023	
N	Starling	29	7 December 2023	
N	Starling	90	7 December 2023	
N	Starling	95	7 December 2023	
N	Blackbird	2	8 December 2023	
Y	Black-headed Gull	1	8 December 2023	
Y	Black-headed Gull	1	8 December 2023	
Y	Black-headed Gull	1	8 December 2023	
Y	Black-headed Gull	1	8 December 2023	

Y	Black-headed Gull	3	8 December 2023	
Y	Common Gull	4	8 December 2023	
N	Great Tit	1	8 December 2023	
Y	Herring Gull	1	8 December 2023	S
Y	Herring Gull	1	8 December 2023	S
N	Hooded Crow	1	8 December 2023	
N	Jackdaw	2	8 December 2023	
N	Little Egret	1	8 December 2023	
N	Pied Wagtail	2	8 December 2023	
N	Pied Wagtail	2	8 December 2023	
N	Rook	3	8 December 2023	
N	Rook	4	8 December 2023	
N	Rook	7	8 December 2023	VAR
N	Rook	8	8 December 2023	
N	Rook	22	8 December 2023	
N	Rook	27	8 December 2023	South. All left field but not obviously flushed
N	Starling	2	8 December 2023	E
N	Starling	3	8 December 2023	N
N	Starling	9	8 December 2023	
N	Starling	40	8 December 2023	
N	Starling	45	8 December 2023	Brief landing then left
N	Starling	150	8 December 2023	
N	Starling	200	8 December 2023	
N	Starling	200	8 December 2023	flushed by dog
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	

Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	1	9 January 2024	
Y	Black-headed Gull	2	9 January 2024	
N	Brambling	2	9 January 2024	
Y	Herring Gull	1	9 January 2024	NW
Y	Herring Gull	4	9 January 2024	VAR
N	Hooded Crow	1	9 January 2024	
N	Jackdaw	1	9 January 2024	
N	Jackdaw	2	9 January 2024	
N	Jackdaw	2	9 January 2024	
N	Jackdaw	2	9 January 2024	
N	Jackdaw	2	9 January 2024	
N	Jackdaw	3	9 January 2024	
N	Jackdaw	3	9 January 2024	
N	Jackdaw	5	9 January 2024	
N	Jackdaw	14	9 January 2024	
N	Little Egret	1	9 January 2024	
N	Mistle Thrush	1	9 January 2024	
N	Mistle Thrush	1	9 January 2024	
N	Rook	1	9 January 2024	
N	Rook	1	9 January 2024	
N	Rook	3	9 January 2024	
N	Rook	4	9 January 2024	
N	Rook	6	9 January 2024	
N	Rook	6	9 January 2024	

N	Rook	7	9 January 2024	
N	Rook	7	9 January 2024	
N	Rook	7	9 January 2024	
N	Rook	8	9 January 2024	
N	Rook	8	9 January 2024	
N	Rook	14	9 January 2024	
N	Rook	14	9 January 2024	
N	Rook	28	9 January 2024	
N	Rook	28	9 January 2024	
N	Rook	43	9 January 2024	
N	Rook	56	9 January 2024	
N	Rook	64	9 January 2024	
N	Rook	66	9 January 2024	
N	Starling	3	9 January 2024	N
N	Starling	13	9 January 2024	
N	Starling	20	9 January 2024	N
N	Starling	80	9 January 2024	
N	Starling	80	9 January 2024	
N	Starling	120	9 January 2024	
N	Starling	130	9 January 2024	
N	Starling	180	9 January 2024	
N	Starling	240	9 January 2024	
N	Starling	250	9 January 2024	
Y	Black-headed Gull	1	10 January 2024	
Y	Black-headed Gull	1	10 January 2024	
Y	Black-headed Gull	1	10 January 2024	
Y	Black-headed Gull	1	10 January 2024	
Y	Black-headed Gull	1	10 January 2024	
Y	Black-headed Gull	2	10 January 2024	

Y	Common Gull	1	10 January 2024	
N	Jackdaw	1	10 January 2024	
N	Pied Wagtail	1	10 January 2024	
N	Rook	1	10 January 2024	
N	Rook	2	10 January 2024	
N	Rook	3	10 January 2024	
N	Rook	4	10 January 2024	
N	Rook	5	10 January 2024	
N	Rook	6	10 January 2024	
N	Rook	7	10 January 2024	
N	Rook	9	10 January 2024	
N	Rook	11	10 January 2024	
N	Rook	13	10 January 2024	
N	Rook	14	10 January 2024	
N	Rook	16	10 January 2024	
N	Rook	22	10 January 2024	
N	Rook	24	10 January 2024	
N	Starling	2	10 January 2024	
N	Starling	3	10 January 2024	
N	Starling	7	10 January 2024	
N	Starling	33	10 January 2024	
N	Starling	40	10 January 2024	
N	Starling	90	10 January 2024	
N	Starling	95	10 January 2024	
N	Starling	110	10 January 2024	
N	Starling	130	10 January 2024	
Y	Black-headed Gull	1	18 February 2024	s
Y	Black-headed Gull	1	18 February 2024	
N	Goldfinch	4	18 February 2024	

N	Great Tit	1	18 February 2024	
N	Great Tit	1	18 February 2024	
Y	Herring Gull	1	18 February 2024	
N	Jackdaw	1	18 February 2024	
N	Little Egret	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	1	18 February 2024	
N	Rook	2	18 February 2024	
N	Rook	2	18 February 2024	
N	Rook	2	18 February 2024	
N	Rook	2	18 February 2024	
N	Rook	3	18 February 2024	
N	Rook	3	18 February 2024	
N	Rook	9	18 February 2024	
N	Starling	5	18 February 2024	
N	Woodpigeon	2	18 February 2024	s

Appendix VII Wintering bird survey data – flight lines across the proposed development

SCI species? Y/N	Species	No. of individuals	Date	Notes (Direction / Disturbance)
Y	Black-headed Gull	1	23 November 2023	
Y	Black-headed Gull	1	23 November 2023	
Y	Black-headed Gull	1	23 November 2023	
Y	Black-headed Gull	6	23 November 2023	
Y	Black-headed Gull	7	23 November 2023	
Y	Black-headed Gull	20	23 November 2023	
N	Buzzard	1	23 November 2023	
N	Goldfinch	1	23 November 2023	
N	Goldfinch	1	23 November 2023	
N	Goldfinch	1	23 November 2023	
N	Goldfinch	2	23 November 2023	
N	Goldfinch	2	23 November 2023	
N	Goldfinch	2	23 November 2023	
N	Goldfinch	2	23 November 2023	
N	Goldfinch	6	23 November 2023	
N	Goldfinch	7	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	
Y	Herring Gull	1	23 November 2023	

Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	2	23 November 2023	
Y	Herring Gull	4	23 November 2023	
Y	Herring Gull	4	23 November 2023	
Y	Herring Gull	6	23 November 2023	
N	Hooded Crow	1	23 November 2023	
N	Hooded Crow	1	23 November 2023	
N	Little Egret	1	23 November 2023	
N	Little Egret	1	23 November 2023	
N	Little Egret	1	23 November 2023	
N	Little Egret	1	23 November 2023	
N	Magpie	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	1	23 November 2023	
N	Rook	2	23 November 2023	

N	Rook	9	23 November 2023	
N	Starling	1	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	2	23 November 2023	
N	Starling	3	23 November 2023	
N	Starling	4	23 November 2023	
N	Starling	5	23 November 2023	
N	Starling	6	23 November 2023	
N	Starling	40	23 November 2023	
N	Starling	40	23 November 2023	
N	Starling	40	23 November 2023	
N	Starling	80	23 November 2023	
N	Starling	300	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Woodpigeon	1	23 November 2023	
N	Blackbird	1	7 December 2023	W
Y	Black-headed Gull	1	7 December 2023	NW
Y	Black-headed Gull	1	7 December 2023	NW
Y	Common Gull	2	7 December 2023	N
Y	Curlew	1	7 December 2023	
Y	Curlew	1	7 December 2023	N
Y	Curlew	5	7 December 2023	S
Y	Curlew	44	7 December 2023	S

Y	Curlew	56	7 December 2023	S
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	1	7 December 2023	NE
Y	Herring Gull	1	7 December 2023	
Y	Herring Gull	1	7 December 2023	NE
Y	Herring Gull	1	7 December 2023	
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	1	7 December 2023	
Y	Herring Gull	1	7 December 2023	E
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	1	7 December 2023	N
Y	Herring Gull	2	7 December 2023	VAR
Y	Herring Gull	2	7 December 2023	N
Y	Herring Gull	2	7 December 2023	
Y	Herring Gull	5	7 December 2023	
Y	Herring Gull	8	7 December 2023	S
Y	Herring Gull	10	7 December 2023	S
N	Hooded Crow	1	7 December 2023	E
N	Hooded Crow	1	7 December 2023	
N	Hooded Crow	1	7 December 2023	
N	Jackdaw	1	7 December 2023	
N	Pied Wagtail	1	7 December 2023	S
N	Rook	1	7 December 2023	S
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	
N	Rook	1	7 December 2023	

N	Rook	1	7 December 2023	
N	Rook	2	7 December 2023	S
N	Rook	3	7 December 2023	
N	Rook	6	7 December 2023	SE
N	Rook	7	7 December 2023	S
N	Rook	9	7 December 2023	S
N	Rook	36	7 December 2023	S
N	Rook	40	7 December 2023	S
N	Song Thrush	1	7 December 2023	W
N	Starling	1	7 December 2023	N
N	Starling	1	7 December 2023	NE
N	Starling	1	7 December 2023	
N	Starling	1	7 December 2023	
N	Starling	2	7 December 2023	East
N	Starling	2	7 December 2023	
N	Starling	2	7 December 2023	
N	Starling	2	7 December 2023	N
N	Starling	3	7 December 2023	
N	Starling	3	7 December 2023	NE
N	Starling	4	7 December 2023	E
N	Starling	4	7 December 2023	
N	Starling	5	7 December 2023	
N	Starling	6	7 December 2023	
N	Starling	6	7 December 2023	ENE
N	Starling	6	7 December 2023	
N	Starling	6	7 December 2023	S
N	Starling	7	7 December 2023	
N	Starling	7	7 December 2023	
N	Starling	8	7 December 2023	

N	Starling	8	7 December 2023	
N	Starling	9	7 December 2023	E
N	Starling	9	7 December 2023	N
N	Starling	23	7 December 2023	N
N	Starling	45	7 December 2023	
N	Starling	90	7 December 2023	
N	Woodpigeon	1	7 December 2023	SE
N	Woodpigeon	1	7 December 2023	S
N	Woodpigeon	12	7 December 2023	SE
N	Woodpigeon	21	7 December 2023	
Y	Black-headed Gull	1	8 December 2023	VAR
Y	Black-headed Gull	1	8 December 2023	S
Y	Black-headed Gull	1	8 December 2023	S
Y	Black-headed Gull	1	8 December 2023	W
Y	Black-headed Gull	4	8 December 2023	SW
Y	Curlew	15	8 December 2023	staying above a potential foraging area S
N	Goldfinch	2	8 December 2023	E
N	Goldfinch	10	8 December 2023	W
Y	Herring Gull	1	8 December 2023	S
Y	Herring Gull	1	8 December 2023	N
Y	Herring Gull	1	8 December 2023	VAR
Y	Herring Gull	1	8 December 2023	N
Y	Herring Gull	1	8 December 2023	SW
Y	Herring Gull	1	8 December 2023	W
Y	Herring Gull	1	8 December 2023	S
Y	Herring Gull	1	8 December 2023	VAR
Y	Herring Gull	2	8 December 2023	N
Y	Herring Gull	2	8 December 2023	NE
Y	Herring Gull	2	8 December 2023	S

Y	Herring Gull	2	8 December 2023	VAR
Y	Herring Gull	4	8 December 2023	S
Y	Herring Gull	4	8 December 2023	VAR
N	Hooded Crow	1	8 December 2023	SW
N	Jackdaw	1	8 December 2023	E
N	Jackdaw	2	8 December 2023	S
N	Jackdaw	4	8 December 2023	SW
N	Pied Wagtail	1	8 December 2023	W
N	Rook	1	8 December 2023	E
N	Rook	1	8 December 2023	S
N	Rook	1	8 December 2023	S
N	Rook	2	8 December 2023	NW
N	Rook	3	8 December 2023	S
N	Rook	4	8 December 2023	
N	Rook	5	8 December 2023	S
N	Rook	6	8 December 2023	S
N	Rook	7	8 December 2023	VAR
N	Rook	8	8 December 2023	S
N	Rook	8	8 December 2023	N
N	Rook	11	8 December 2023	S
N	Rook	17	8 December 2023	S
N	Rook	30	8 December 2023	S
N	Song Thrush	1	8 December 2023	S
N	Starling	1	8 December 2023	S
N	Starling	2	8 December 2023	W
N	Starling	2	8 December 2023	E
N	Starling	3	8 December 2023	E
N	Starling	3	8 December 2023	W
N	Starling	3	8 December 2023	N

N	Starling	4	8 December 2023	N
N	Starling	4	8 December 2023	SW
N	Starling	5	8 December 2023	E
N	Starling	11	8 December 2023	E
N	Starling	16	8 December 2023	E
N	Starling	35	8 December 2023	SW
N	Woodpigeon	2	8 December 2023	SW
Y	Black-headed Gull	1	9 January 2024	N
N	Goldfinch	6	9 January 2024	S
Y	Herring Gull	1	9 January 2024	NE
Y	Herring Gull	1	9 January 2024	first winter (N)
Y	Herring Gull	1	9 January 2024	N
Y	Herring Gull	1	9 January 2024	
Y	Herring Gull	1	9 January 2024	adult. S.
Y	Herring Gull	1	9 January 2024	N
Y	Herring Gull	1	9 January 2024	S
Y	Herring Gull	1	9 January 2024	Adult. S.
Y	Herring Gull	1	9 January 2024	VAR
Y	Herring Gull	2	9 January 2024	VAR
Y	Herring Gull	2	9 January 2024	VAR
Y	Herring Gull	2	9 January 2024	VAR
Y	Herring Gull	2	9 January 2024	VAR. adult
Y	Herring Gull	2	9 January 2024	SW
Y	Herring Gull	2	9 January 2024	W
Y	Herring Gull	2	9 January 2024	VAR
Y	Herring Gull	3	9 January 2024	adults. VAR
Y	Herring Gull	3	9 January 2024	S
Y	Herring Gull	5	9 January 2024	Var
Y	Herring Gull	5	9 January 2024	VAR

Y	Herring Gull	22	9 January 2024	S
N	Jackdaw	1	9 January 2024	N
N	Jackdaw	1	9 January 2024	N
N	Magpie	1	9 January 2024	N
N	Rook	1	9 January 2024	W
N	Rook	1	9 January 2024	
N	Rook	1	9 January 2024	N
N	Rook	1	9 January 2024	S
N	Rook	2	9 January 2024	S
N	Rook	2	9 January 2024	NW
N	Rook	2	9 January 2024	W
N	Rook	2	9 January 2024	SW
N	Rook	2	9 January 2024	SW
N	Rook	2	9 January 2024	W
N	Rook	4	9 January 2024	S
N	Rook	5	9 January 2024	W
N	Rook	11	9 January 2024	W
N	Rook	27	9 January 2024	S
N	Rook	36	9 January 2024	VAR
N	Rook	60	9 January 2024	S
N	Rook	80	9 January 2024	S
N	Rook	83	9 January 2024	S
N	Starling	1	9 January 2024	NE
N	Starling	1	9 January 2024	NE
N	Starling	1	9 January 2024	E
N	Starling	1	9 January 2024	NE
N	Starling	1	9 January 2024	NE
N	Starling	2	9 January 2024	N
N	Starling	2	9 January 2024	NE

N	Starling	2	9 January 2024	NE
N	Starling	2	9 January 2024	N
N	Starling	2	9 January 2024	N
N	Starling	2	9 January 2024	N
N	Starling	2	9 January 2024	SW
N	Starling	3	9 January 2024	N
N	Starling	3	9 January 2024	N
N	Starling	3	9 January 2024	N
N	Starling	4	9 January 2024	N
N	Starling	5	9 January 2024	NW
N	Starling	6	9 January 2024	NW
N	Starling	7	9 January 2024	N
N	Starling	7	9 January 2024	ENE
N	Starling	7	9 January 2024	S
N	Starling	8	9 January 2024	N
N	Starling	8	9 January 2024	
N	Starling	8	9 January 2024	N
N	Starling	9	9 January 2024	N
N	Starling	9	9 January 2024	N
N	Starling	9	9 January 2024	N
N	Starling	9	9 January 2024	S
N	Starling	9	9 January 2024	NE
N	Starling	9	9 January 2024	N
N	Starling	10	9 January 2024	N
N	Starling	11	9 January 2024	N
N	Starling	11	9 January 2024	N
N	Starling	11	9 January 2024	N
N	Starling	11	9 January 2024	N
N	Starling	11	9 January 2024	N

N	Starling	11	9 January 2024	N
N	Starling	11	9 January 2024	N
N	Starling	12	9 January 2024	NE
N	Starling	12	9 January 2024	N
N	Starling	12	9 January 2024	VAR
N	Starling	16	9 January 2024	N
N	Starling	17	9 January 2024	N
N	Starling	18	9 January 2024	ENE
N	Starling	19	9 January 2024	VAR
N	Starling	19	9 January 2024	E
N	Starling	19	9 January 2024	N
N	Starling	20	9 January 2024	N
N	Starling	25	9 January 2024	SW
N	Starling	26	9 January 2024	N
N	Starling	28	9 January 2024	VAR
N	Starling	30	9 January 2024	N
N	Starling	35	9 January 2024	S
N	Starling	40	9 January 2024	N
N	Starling	45	9 January 2024	S
N	Starling	49	9 January 2024	N
N	Starling	54	9 January 2024	S
N	Starling	130	9 January 2024	SW
N	Starling	180	9 January 2024	VAR
N	Starling	200	9 January 2024	VAR
N	Starling	200	9 January 2024	N
N	Starling	240	9 January 2024	S
N	Starling	250	9 January 2024	S
N	Starling	280	9 January 2024	SW
N	Woodpigeon	3	9 January 2024	N

N	Goldfinch	2	10 January 2024	VAR
N	Goldfinch	4	10 January 2024	SE
Y	Herring Gull	1	10 January 2024	SW
Y	Herring Gull	1	10 January 2024	VAR. adult
Y	Herring Gull	1	10 January 2024	N
Y	Herring Gull	1	10 January 2024	E
Y	Herring Gull	1	10 January 2024	SW
Y	Herring Gull	1	10 January 2024	VAR. 3rd winter
Y	Herring Gull	1	10 January 2024	SE
Y	Herring Gull	1	10 January 2024	S. 3rd Winter
Y	Herring Gull	1	10 January 2024	VAR 3rd winter. mobbing raven
Y	Herring Gull	1	10 January 2024	NE
N	Hooded Crow	1	10 January 2024	N
N	Hooded Crow	1	10 January 2024	S
N	Magpie	1	10 January 2024	NW
N	Raven	1	10 January 2024	VAR
N	Rook	1	10 January 2024	S
N	Rook	1	10 January 2024	E
N	Rook	1	10 January 2024	N
N	Rook	1	10 January 2024	S
N	Rook	1	10 January 2024	S
N	Rook	1	10 January 2024	N
N	Rook	1	10 January 2024	NE
N	Rook	1	10 January 2024	SE
N	Rook	1	10 January 2024	E
N	Rook	1	10 January 2024	N
N	Rook	1	10 January 2024	S
N	Rook	2	10 January 2024	E

N	Rook	2	10 January 2024	S
N	Rook	2	10 January 2024	SE
N	Rook	2	10 January 2024	W
N	Rook	2	10 January 2024	S
N	Rook	3	10 January 2024	S
N	Rook	4	10 January 2024	S
N	Rook	5	10 January 2024	NE
N	Rook	6	10 January 2024	SW
N	Rook	6	10 January 2024	W
N	Rook	7	10 January 2024	W
N	Starling	1	10 January 2024	E
N	Starling	1	10 January 2024	N
N	Starling	1	10 January 2024	N
N	Starling	1	10 January 2024	N
N	Starling	2	10 January 2024	N
N	Starling	2	10 January 2024	ENE
N	Starling	2	10 January 2024	E
N	Starling	2	10 January 2024	N
N	Starling	2	10 January 2024	N
N	Starling	2	10 January 2024	
N	Starling	2	10 January 2024	NE
N	Starling	2	10 January 2024	N
N	Starling	2	10 January 2024	N
N	Starling	2	10 January 2024	E
N	Starling	2	10 January 2024	N
N	Starling	3	10 January 2024	N
N	Starling	3	10 January 2024	N
N	Starling	3	10 January 2024	E
N	Starling	3	10 January 2024	N

N	Starling	4	10 January 2024	N
N	Starling	4	10 January 2024	E
N	Starling	4	10 January 2024	E
N	Starling	4	10 January 2024	E
N	Starling	4	10 January 2024	N
N	Starling	4	10 January 2024	NE
N	Starling	4	10 January 2024	N
N	Starling	4	10 January 2024	E
N	Starling	4	10 January 2024	E
N	Starling	5	10 January 2024	NE
N	Starling	5	10 January 2024	N
N	Starling	5	10 January 2024	SW
N	Starling	6	10 January 2024	N
N	Starling	6	10 January 2024	NE
N	Starling	6	10 January 2024	E
N	Starling	7	10 January 2024	NW
N	Starling	7	10 January 2024	N
N	Starling	8	10 January 2024	N
N	Starling	8	10 January 2024	M
N	Starling	9	10 January 2024	S
N	Starling	10	10 January 2024	N
N	Starling	10	10 January 2024	S
N	Starling	12	10 January 2024	NE
N	Starling	12	10 January 2024	N
N	Starling	13	10 January 2024	NE
N	Starling	13	10 January 2024	S
N	Starling	15	10 January 2024	NE
N	Starling	16	10 January 2024	N
N	Starling	18	10 January 2024	SW

N	Starling	19	10 January 2024	N
N	Starling	19	10 January 2024	S
N	Starling	25	10 January 2024	S
N	Starling	28	10 January 2024	S
N	Starling	30	10 January 2024	NE
N	Starling	30	10 January 2024	S
N	Starling	35	10 January 2024	S
N	Starling	35	10 January 2024	W
N	Starling	35	10 January 2024	E
N	Starling	50	10 January 2024	S
N	Starling	110	10 January 2024	flushed by dog walker
N	Starling	200	10 January 2024	SE
N	Starling	260	10 January 2024	VAR
N	Woodpigeon	2	10 January 2024	VAR
N	Woodpigeon	42	10 January 2024	VAR
Y	Black-headed Gull	1	18 February 2024	S
Y	Herring Gull	1	18 February 2024	S
Y	Herring Gull	1	18 February 2024	N
Y	Herring Gull	1	18 February 2024	S
Y	Herring Gull	1	18 February 2024	SW
Y	Herring Gull	1	18 February 2024	NW
Y	Herring Gull	1	18 February 2024	S
Y	Herring Gull	3	18 February 2024	VAR
Y	Herring Gull	4	18 February 2024	VAR
N	Hooded Crow	1	18 February 2024	N
N	Hooded Crow	1	18 February 2024	W
N	Jackdaw	1	18 February 2024	E
N	Little Egret	1	18 February 2024	VAR
N	Rook	1	18 February 2024	W

N	Rook	1	18 February 2024	W
N	Rook	1	18 February 2024	S
N	Rook	1	18 February 2024	E
N	Rook	1	18 February 2024	W
N	Rook	2	18 February 2024	S
N	Rook	2	18 February 2024	NW
N	Rook	2	18 February 2024	NE
N	Rook	2	18 February 2024	SE
N	Rook	3	18 February 2024	S
N	Rook	5	18 February 2024	S
N	Rook	6	18 February 2024	S
N	Rook	7	18 February 2024	S
N	Rook	7	18 February 2024	S
N	Rook	9	18 February 2024	S
N	Rook	11	18 February 2024	S
N	Rook	19	18 February 2024	S
N	Rook	25	18 February 2024	S
N	Rook	35	18 February 2024	S
N	Rook	64	18 February 2024	S
N	Rook	169	18 February 2024	S
N	Starling	1	18 February 2024	SW
N	Starling	1	18 February 2024	NW
N	Starling	2	18 February 2024	E
N	Woodpigeon	2	18 February 2024	S
N	Woodpigeon	2	18 February 2024	SW
N	Woodpigeon	4	18 February 2024	S

Appendix VIII Wintering bird survey data – bird point counts of the proposed development

Species	No. of individuals	Seen / Heard / Both	Date	Notes
Goldfinch	3	Both	23 November 2023	
Blue Tit	1	Both	07 December 2023	
Starling	250	Seen	07 December 2023	
Blackbird	1	Heard	08 December 2023	
Blackbird	1	Both	08 December 2023	
Blue Tit	1	Both	08 December 2023	
Goldcrest	1	Both	08 December 2023	
Grey Wagtail	1	Both	08 December 2023	
Moorhen	3	Both	08 December 2023	
Robin	1	Both	08 December 2023	
Robin	1	Both	08 December 2023	
Song Thrush	1	Both	08 December 2023	
Wren	1	Both	08 December 2023	
Goldfinch	1	Both	10 January 2024	
Great Tit	1	Both	10 January 2024	
Great Tit	2	Seen	10 January 2024	
House Sparrow	1	Both	10 January 2024	
Long-tailed Tit	6	Both	10 January 2024	
Moorhen	2	Seen	10 January 2024	
Pied Wagtail	1	Seen	10 January 2024	
Rook	1	Both	10 January 2024	
Rook	2	Seen	10 January 2024	
Woodpigeon	1	Seen	10 January 2024	
Grey Wagtail	1	Both	18 February 2024	
House Sparrow	3	Both	18 February 2024	
Rook	2	Seen	18 February 2024	

Appendix IX Contributor Details

Technical assistant - Callum O'Regan holds a B.Sc. degree in Zoology from University College Cork and obtained a Master's degree in Conservation Behaviour from Galway-Mayo Institute of Technology in 2021. Callum has skills in data management and analysis, report writing and mapping. Callum has also worked on the preparation of a number of Appropriate Assessment Screening Reports for private and public projects of various sizes and complexities.

Lead Ecologist - Karen Dylan Shevlin has over 9 years' experience working in multiple capacities in ecology in national and international research institutions and organisations, and holds a MSc degree in Biodiversity and Conservation from Trinity College Dublin (2013). Karen has significant skills in leading research and ecological surveys of bats, insects, habitats, birds, and mammals, in addition to data analysis, mapping and compiling complex reports. Karen has worked on producing multiple AA Screening Reports, NISs, EclAs and EIARs for public land use Plans, and public and private projects ranging from smaller facilities upgrades projects to major wind turbine sites. Karen is also a specialist in entomology and ecological theory, and the impacts/effects that altering natural dynamics may have on the surrounding environment. This combination of skills and knowledge provides the backbone of the assessment process, and ensures that the highest quality of baseline and detailed data gathered in the field, and subsequently interpreted in a manner that is grounded in the best scientific knowledge and experience.

Reviewer - Paul Fingleton has an MSc in Rural and Regional Resources Planning (with specialisation in EIA) from the University of Aberdeen. Paul is a member of the International Association for Impact Assessment as well as the Institute of Environmental Management and Assessment. He has over twenty-five years' experience working in the area of Environmental Assessment. Over this period, he has been involved in a diverse range of projects including contributions to, and co-ordination of, numerous complex EIARs and EIA screening reports. He has also contributed to and supervised the preparation of numerous AAs and AA screenings.

Paul is the lead author of the current EPA Guidelines and accompanying Advice Notes on EIARs. He has been involved in all previous editions of these statutory guidelines. He also provides a range of other EIA related consultancy services to the EPA. Paul is regularly engaged by various planning authorities and other consent authorities to provide specialised EIA advice.